



Camp Douglas, Wis. Aug. 17, 1890.

1

⁸⁶⁴ 1000. Tamias quadrivittatus neglectus. ♀ ad. (Has suckled young)

Camp Douglas, Wis. Aug. 17, 1890.

⁸⁶⁵ 1001. Tamias q. neglectus. ^{missing - Capt. B. Aldwin looked it?} ♀ immature (Has not suckled young). do.

⁸⁶⁶ 1002. Tamias q. neglectus ♂ young of the year

A "Walking Stick", nearly 3 inches long was found in Camp.

⁷¹⁷⁶ 8000. Vireo flavifrons ♀ ad. molting badly. Shot Aug. 16, 1890.

⁷¹⁷⁷ 8001. Habia ludoviciana ♂ juv. ^{Recently} from nest. do

⁷¹⁷⁸ 8002. Sturnella magna ♀ juv. Aug. 17, 1890.

⁷¹⁷⁹ 8003. Piranga erythromelas. ♂ juv. do

Trochilus colubris. - Abundant on edges of Laramie swamps

Carpodacus purpureus. - Several.

August 18, 1890.

Camp Douglas, Wis.

⁸⁶⁷ 1003. Tamias quadrivittatus neglectus. ♂ ad.

⁸⁶⁸ 1004. " " " ♂ ad.

⁸⁶⁹ 1005. " " " ♂ ad.

⁸⁷⁰ 1006. " " " ♀ ad. } Have suckled young.

⁸⁷¹ 1007. " " " ♀ ad. }

⁸⁷² 1008. " " " ♀ } These three are nearly full grown, but show no evidence of lactation. The

⁸⁷³ 1009. " " " ♀ } central light stripes are much grayer and less mixed with

⁸⁷⁴ 1010. " " " ♀ } rufous than in adults.

⁸⁷⁵ 1011. " " " ♂ } Young of the year. In "wooly" coat. Younger smaller than the

⁸⁷⁶ 1012. " " " ♂ } above females, which may be young of preceding year.

The young can be distinguished from adults by their woolly coats and lighter, grayer central stripes, etc., adults are more mixed with rufous hairs in the central light stripes, and have much fuller, bushier tails.

A Dove's nest (Zenaidura macroura) was found to-day, upon the ground, beneath a sweet fern bush. It was quite well built for a Dove's nest, composed of ^{a few} sticks & plant stems, copiously covered with feathers from the parent birds. It contained two fresh eggs, which were preserved. Major Wirt Davis also found a nest in a bush containing 2 fresh eggs of this species.

August 19, 1890. Camp Douglas, Wis.

- 877
1013 *Sciurus hudsonius* ♀ ad.
7180
8004 *Cyanocitta cristata* ♂ (ad.?) molting badly.
7181 *Otocoris alpestris praticola* ♂ ad. Molting & very worn plumage.
7182 " " " ♀ ad.

August 20, 1890. Camp Douglas, Wis.

- 878
1014 *Sciurus ^{carolinensis} leucotis hypophorus* ♀ ad. Charlie Hobart.
879
1015 *Sciurus hudsonius* ♀ juv. Young of the year.
880
1016 " " ♂ ad.
7183
8005 *Coccyzus erythrophthalmus* ♀ ad.

August 24, 1890. Camp Douglas, Wis.

- 881
1017 *Sciurus hudsonius* ♀ juv. Young of the year.
882
1018 *Sciurus hudsonius* ♂ ad. Measurements on Table p. 6.
883
1019 *Tamias striatus* ♂ ad. do do
884
1020 " ♂ juv. Young of the year.
885
1021 *Sciurus ^{carolinensis} leucotis hypophorus* ♀ juv. Young of the year.
886
1022 *Spermophilus tereticaucatus* ♂ juv. do
7184
8006 *Melanerpes erythrocephalus* ♀ juv.
7185
8007 *Bonasa umbellus* ♀ ad.
7186
8008 *Melanerpes erythrocephalus* ♂ ad. Not measured.
7187
8009 *Pranga erythrocephala* ♂ juv. Young of the year.
7188
8010 *Petrochelidon lunifrons* ♂ juv. do
7189
8011 *Dolichonyx oryzivorus* ♀ juv. do
7190
8012 *Passer domesticus* ♀ ad. Not measured.

August 27, 1890. Camp Douglas, Wis.

- 887
1023 *Sciurus hudsonius* ♀ juv.
888
1024 *Tamias neglectus* ♂ ad. Measurements on Table (p. 6.)
889
1025 " " ♂ ad. do
890
1026 " " ♀ immature; has not suckled young. Not measured.
891
1027 *Sciurus hudsonius* ♀ ad. Measurements on p. 6. Has suckled.

August 29, 1890. Camp Douglas, Wis.

- 892
1028 *Lepus sylvaticus* ♀ ad. Measurements on p. 6. Contained 3.
893
1029 *Sciurus hudsonius* ♂ immature. Probably young of the year.
894
1030 *Tamias neglectus* ♀ ad. Has nursed off. Meas. on p. 6. Molting.
895
1031 " " ♂

- 896
1032 *Tamias neglectus* ♂
897
1033 " " ♀ juv. Young of the year.
898
1034 " " ♀ immature. Has not suckled young.
899
1035 " " ♀ " do
900
1036 " " ♀ " do

August 30, 1890. Camp Douglas, Wis.

- 901
1037 *Sciurus ^{carolinensis} leucotis hypophorus* ♀ ad. Meas. on Table p. 6.

An old female. Has suckled young.

- 902
1038 *Sciurus hudsonius* ♀ ad. Has suckled young. Meas. on Table. Suckling young. Contained plenty of milk.
Shot August 30. Black line pretty strong.

- 903
1039 *Hesperomys leucopus* ♂ (ad.?) Sexual organs much developed.

- 904
1040 *Sciurus hudsonius* ♂ Not measured For age see skull

- 905
1041 " " ♀ Reddish Has never suckled.

- 906
1042 " " ♀ Grayish do

- 907
1043 " " ♂ " do

- 908
1044 *Hesperomys leucopus* ♂ young. In gray pelage.

August 31, 1890. Camp Douglas, Wis.

- 909
1045 *Sciurus haysi* ♂ ad. Measurements on p. 6.

A very old, tough male Fox Squirrel.

September 1, 1890. Camp Douglas, Wis.

- 910
1046 *Sciurus hudsonius* ♀ ad. Suckling young; breasts full of milk.

- 911
1047 *Sciurus hudsonius* ♂ For age see skull. Not measured.

- 7191
8013 *Coccyzus erythrophthalmus* juv. Young of the year.

- 7192
8014 *Melospiza georgiana* juv. do

Fulica americana. - One was running about in our camp, among the tents, in a sandy tract away from water. It had evidently dropped down here during last night's flight, exhausted.

Sept. 3rd, 1890. Camp Douglas, Wis.

- 912
1048 *Lepus sylvaticus* ♀ ad. Nursing; breasts full of milk. Measurements on page 6.

Sept. 4, 1890. Camp Douglas, Wis.

- 913
1049 Bat. ♀ Measurements on p. 8

- 914
1050 " ♀ do

915
1051
916
1052

Sept. 5, 1890. Camp Douglas, Wis.

Tamias quadrivittatus neglectus ♂. Forage see skull.

" " " ♂ do.

Sept. 7, 1890. Camp Douglas, Wis.

917
1053 *Peromyscus leucopus*. ♀ ad. Measurements on page 6.

918
1054 *Lepus sylvaticus*. ♀ ad. do [Breasts full of milk.]

919
1055 *Sorex carolinensis* ~~hypophora~~ ♀ ad. do [Has suckled young]

920
1056 " " " ♀ ad. do do

921
1057 " *hudsonius*. ♀ (see skull for age). Has never suckled young; not measured.

7193
80/5 *Achitis macularia* ♀ juv. not measured.

Cistothorus stellatus. - One seen; singing.

Sept. 10, 1890. Camp Douglas, Wis.

Antrostomus vociferus. - Heard to-night.

Bubo virginianus. - Heard to-night.

Octopistes migratorius. - Tail-feathers picked up.

Vireo olivaceus. - Still common; singing.

Zenaidura macroura. - Two half-feathered young in nest.

Carpodacus rufus. - Still present; apparently scarce however.

Colaptes carolinensis. - do

Chordeiles virginianus. - In small flocks every day up to Sept. 8th.

Sept. 11, 1890. Camp Douglas, Wis.

922
1058 *Scalops argentatus*. ♀ ad. Measurements on p. 6. Captured alive. It could dig out of sight in a surprisingly short time when placed on the surface. Additional measurements. - Bare portion of tail, 20 mm.

Note *Geomys bursarius*. - This beast is a notorious fighter. Capt. Hobart informs me that one caught in his garden was given to a cat that had a reputation as a rat-ter, but refused to attack the Gopher, which was then taken to the Company, where two cats attacked & killed it.

1059

Fort Snelling, Minn.

Sept. 16, 1890. 5

Atalapha cinerea (Isenhardt). Hoary Bat. ♀ ad.

Description. - Color above buff, deepening to vinaceous rufous posteriorly (on intermembral membrane); below, everywhere overlaid by the silvery tips to the hairs. On the middle of the back the hairs are blackish at base, succeeded by a broad buffy area, subterminally mixed with chocolate brown and tipped with silvery white. Below ashy brown, tipped with silvery white. Head with upper lips, lower jaw, sides of head as far as ears, and upper lips, nose and border of ears, black; the rest of the head buff, except the center of the forehead, which has silver tips like the rest of the upper surface. The hairy coat on the anterior portion of the wing outward, ^{beyond} the carpal joint is buff, mixed with gray next to the body. Bare portion of under side of intermembral membrane purplish black. Bare portion of alar membrane purplish black, except the anterior border from the middle of the humerus outward to the end of the proximal phalanges. Feet black, with. A patch of ~~buff~~ buffy hair at the base of the thumb, and inner phalanges; also in front of the elbow joint.

Number.	Length to end of caudal vertebrae.	Head & body.	Tail, vert.	Tail, hairs.	Tail, width.	Dist. eyes.	Chest girth.	Diameter of eye.	From tip of nose to eye.	To centre of pupil.	To auditory meatus.	To tip of ear.	To occiput.	To end of outstretched hind leg, extremity.	Fore limb from coracoid.	Fore limb from olecranon.	Manus, length.	Manus, width.	Longest claw of manus.	Hind limb from great trochanter.	Hind limb from patella.	Length of hind foot (heel).	Width of hind foot.	Longest claw of foot.	Longest Whisker.	Ear of above cranium.	Ear above notch.	Ear width.	
882	1018	205	—	—	85	28	150	8	22	27	42	67	53	337	42	69	35	10	5 $\frac{8}{10}$	125	93	51	11	6 $\frac{8}{10}$					
883	1019	267	175	107	127	48	20	88	6	20	23 $\frac{5}{10}$	38	56	45	252	62	47	22 $\frac{5}{10}$	7 $\frac{5}{10}$	4 $\frac{3}{10}$	90	66	38	9	4		13		
888	1024	204	114	97	121	33	16	69	5 $\frac{3}{10}$	12 $\frac{5}{10}$	17	27	45	35	181	49	38	18	5 $\frac{7}{10}$	3 $\frac{4}{10}$	72	51	31	6 $\frac{5}{10}$	3 $\frac{8}{10}$	28			
889	1025	212	115	99	127	36	15	63	5 $\frac{1}{10}$	13 $\frac{6}{10}$	17 $\frac{2}{10}$	28	46	35	188	50	38	18 $\frac{5}{10}$	5 $\frac{2}{10}$	4	78	57	32	6	4	26			
891	1027	320	145	132	180	78	25	98	7	20	29	40	61	50	302	85	65	35	9 $\frac{5}{10}$	6	118	86	51	10	7	48	16	24	16
892	1028	460	420	62	87	55	36	200	13	47	53	74	153	86	650	170	118	51	—	6	249	192	101	—	8	70	70	56	41
894	1130	209	119	92	117	38	14 $\frac{5}{10}$	60	5 $\frac{4}{10}$	13	17	27 $\frac{5}{10}$	46	35	185	51	37	18	5	3 $\frac{2}{10}$	74	55	31	6 $\frac{2}{10}$	3 $\frac{3}{10}$	30	11 $\frac{5}{10}$	12 $\frac{5}{10}$	12
901	1037	495	280	224	333	150	37	145	9.2	31	38	57	88	70	430	123	97	51	15	9.5	171	127	73	17	9.2	74	27	34	22
902	1038	322	197	137	162	68	26	105	6.8	20	26	41	62	57	303	83	63	33.5	10	7	117	86	50	10.5	7	52	15.5	25	16
903	1039	155	86	69	74	—	10	—	3.9	13	15	22.5	40	38	128	32	25	12.2	3.8	—	48	37	20	4.3	—	23	12.5	17	12.5
909	1045	563	327	248	330	140	39	155	10	33	41	63	90	76	440	133	107	53	14	10	185	137	77	20	10	71	21	32	25
910	1046	317	194	133	180	75	25	105	7.2	19	25	39	61	50	305	85	64	38.5	6.8	117	85	48	10	6.5	50	14.5	25	16	
912	1048	475	430	25	105	55	35	210	14	45	55	75	150	85	655	184	130	59	—	7	277	197	110	—	10	72	74	58	44
917	1053	160	86	74	79	—	9.5	5.3	4	12.5	15	23	40	38	129	32	24.5	12	3.5	—	49	37	21	4.6	—	35	13	17	13
918	1054	485	435	75	100	65	40	230	14	46	57	76	155	90	640	165	120	52	—	7	—	198	109	—	10	8.5	72	58	43
919	1055	510	278	238	328	112	35	145	9	31	38	58	88	74	432	130	98	49	14	9.5	174	132	72	15	10	60	26	35.5	22
920	1056	487	266	222	324	120	36	135	9	32	39	58	84	70	425	123	96	49	13	9	177	131	71	15	9	65	24	32	22
922	1058	168	136	32	—	3.2	10	90	—	25	25	40.5	21	47	173	—	—	24	21	7.6	57	39	22	10	4	none			
924	1059	325	200	141	196	90	26	105	7.7	21	27	40.5	60	50.5	310	86	65	32	9.0	7.0	125	88	49	10	7	65	17	23	17
960	258	162	101	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
928	299	203	128	196	112	28	105	7.0	22	27.0	42	61	53	313	—	66	31	9.0	6.5	120	89	50	10.5	7.0	56	16	25	19	
929	333	200	141	190	76	27	100	7.0	21	26.0	42	60	52	300	89	67	34	9.4	6.7	117	66	50	10.5	7.0	63	14	35	17	
930	247	168	88	115	47	22	95	6.0	18	23.5	36	52	45	242	61	46	22.5	7.0	4.4	86	64	37	8	4.8	30	12	20.5	15	
931	256	164	101	122	37	21.0	8.5	6.0	18	22.5	35	49	43	240	59	45	23	6.0	3.7	85	63	35	7.5	4.1	36	12	18	14	
932	270	170	106	131	45	21.5	90	6.0	18	23.0	36	50	45	247	63	47	24	6.1	4.3	86	65	38	7.5	4.6	35	13	19	15	
933	270	170	108	129	42	21.0	85	6.0	18	22.5	36	51	45	251	62	47	24	6.5	4.3	90	65	37	8.0	4.9	35	13.5	20	15	
941	350	190	168	—	7	14.5	90	6.0	22	25.0	40	62	50	270	61	48	20.5	7.0	3.2	90	70	42	10	5.0	45	16	19	16	
943	126	102	27	33	4	—	—	—	16	—	21	—	31	134	29	25	13.5	5	3.6	40	33	17	4.2	2.5	22	—	—	—	
944	129	102	30	36	3	—	—	—	13	—	22	—	29.5	130	26	23	12.3	4.7	3.0	—	30	15.5	4.7	2.7	23	—	—	—	
945	268	170	100	125	42	20.5	85	6.0	18	23.5	37	53	46.0	250	63	46	22	6.0	3.5	86	64	37	7.5	4.0	37	13	21	15.5	
949	267	165	104	126	40	21	90	6.0	18.5	23.5	36.5	54	45.5	245	61	45	23	7.0	4.0	85	64	35	8.0	4.1	31	12	20	15	

Number	Total length	Head and body	Tail vert.	Ears, height above crown	Ear, height above notch	Ear, width	Ear, height of stragel	Distance between eyes	From tip of nose to angle of mouth	% eye	Centre of pupil	Auditory meatus	% of ear
913													
1049	105	60	45	12	17	10	7	8.5	10	9	10	15	23
914		63											
1050	107	65	44	10.5	17	15	7	8	10.5	9	9.8	15	26
923													
1059	140	75	65	11.5	19	16	8	11.5	11	9	10	17	27
940	94	53	41	11.5	12.5	8	5.5	7	8	7	7.5	12	21

Occiput	End of outstretched hinder extremity	Alar expanse	Wing from carpal joint	Length of radio-humeral joint	Length of alar bone and claw	Alar claw	From hind limb to head of femur	From patella	Length of pes	Width of pes	Longest claw of pes
20	96	292	71	41	6	2	37	25	8	3.5	2-2
20	101	300	72	44	6-2	2	39	25	8	3.5	2-2
23	125	415	112	54	11	3.5	55	34	12	4	2
16	91	260	64	37	8	2	36	28	11	3.3	2.3

" List of the Mammals of Wisconsin. "

[From the "Geology of Wisconsin", Vol. I, 1883, pp. 436-440.]

No.	Page	Scientific Name	Common Name
1	436	<i>Felis concolor</i>	Panther
2	"	<i>Lynx Canadensis</i>	Canada Lynx
3	"	<i>Lynx rufus</i>	Wildcat
4	"	<i>Canis lupus</i>	Gray Wolf
5	"	<i>Canis latrans</i>	Prairie Wolf
6	"	<i>Vulpes fulvus</i>	Red Fox
7	"	<i>Vulpes Virginianus</i>	Gray Fox
8	"	<i>Mustela Americana</i>	Pine Marten
9	"	" <i>Pennanti</i>	Fishers
10	"	<i>Putorius novboracensis</i>	White Weasel
11	437	" <i>vulgaris</i>	Little "
12	"	" <i>sicognanii</i>	Small "
13	"	" <i>Richardsonii</i>	Richardson's "
14	"	" <i>vison</i>	Skunk
15	"	<i>Mephitis mephitis</i>	Skunk
16	"	<i>Lutra Canadensis</i>	Otter
17	"	<i>Taxidea Americana</i>	American Badger
18	"	<i>Lelo luscus</i>	Walverine
19	"	<i>Ursus Americanus</i>	Black Bear
20	"	" <i>cinnamomum</i>	Cinnamon Bear
21	"	<i>Procyon lotor</i>	Raccoon
22	"	<i>Cervus alces</i>	Moose
23	"	<i>Cervus Canadensis</i>	Elk
24	"	<i>Cervus Virginianus</i>	Common Deer
25	438	<i>Vespertilio subulatus</i>	Say. Little Brown Bat
26	"	" <i>Lucifugus</i>	Leconte. Blind Noct Bat
27	"	<i>Lasiurus novboracensis</i>	Jones. Red Bat
28	"	" <i>pruinus</i>	Say. Hoary Bat
29	"	<i>Scotophilus fuscus</i>	Palmer. Brown Bat
30	"	" <i>Carolinensis</i>	G. St. Hilaire. Carolina Bat
31	"	" <i>noctivagus</i>	Leconte. Silvery Bat
32	"	" <i>Georgianus</i>	H. Allen. Georgia Bat
33	"	<i>Scalops argentatus</i>	Bachman. Silvery Mole
34	"	<i>Condylura cristata</i>	Linnaeus. Star-nosed mole
35	"	<i>Sorex Cooperi</i>	Bachman. Cooper's Shrew
36	"	" <i>platyrhinus</i>	DeKay

37	438	<i>Sorex Richardsonii</i>	Bachman. Richardson's Shrew
38	"	" <i>Heoyi</i>	Baird. Heoy's Shrew
39	"	<i>Blarina talpoides</i>	Gopher
40	"	" <i>bruceanda</i>	Say. Mole Shrew
41	"	<i>Taculus Hendersonii</i>	Jumping Mouse
42	"	<i>Mus musculus</i>	Common Mouse
43	"	<i>Mus rattus</i>	Black Rat
44	"	<i>Mus decumanus</i>	Brown or Norway Rat
45	"	<i>Hesperomys leucopus</i>	White-footed Wood Mouse
46	"	" <i>Bairdii</i>	White-footed Prairie Mouse
47	439	" <i>Michiganensis</i>	Prairie Mouse
48	"	<i>Arvicola austerus</i>	Prairie Meadow Mouse
49	"	" <i>riparius</i>	Meadow Mouse
50	"	" <i>pinetorum</i>	Pine Mouse
51	"	" <i>Gapperi</i>	Vigors
52	"	<i>Fiber zibethicus</i>	Muskrat
53	"	<i>Castor fiber</i>	American Beaver
54	"	<i>Sciurus Sayi</i>	Fox Squirrel
55	"	<i>Sciurus migratorius</i>	Gray Squirrel
56	"	" <i>niger</i>	Black Squirrel
57	"	" <i>Hendersonii</i>	Red Squirrel
58	"	<i>Pteromys volucella</i>	Flying Squirrel
59	"	" <i>Hendersonii</i>	Northern Flying Squirrel
60	"	<i>Tamias striatus</i>	Chipmunk
61	440	" <i>quadri vittatus</i>	Say. Four-Striped Squirrel
62	"	<i>Spermophilus tridecem-lineatus</i>	Striped Gopher
63	"	" <i>Franklini</i>	Gray Gopher
64	"	<i>Geomys bursarius</i>	Pouched Gopher
65	"	<i>Heteromys monax</i>	Wood-chuck
66	"	<i>Hystrix dorsata</i>	Canada Porcupine
67	"	<i>Lepus Americanus</i>	Northern Hare
68	"	<i>Lepus sylvaticus</i>	Gray Rabbit
69	"	<i>Didelphys Virginiana</i>	Opossum

Note. *T. neglectus*. - " Found in northern and central Wisconsin. Food, nests and seeds of plants and grasses, also the seeds of the white pine. Its habits are generally similar to the preceding [*T. strictus*].

"Catalogue of the Cold-Blooded Vertebrates of Wisconsin."

By P. R. Hay, M. D.

[Geology of Wisconsin, pp. 422 to 435.]

- Page
- 422 *Cistudo ornata* (Agassiz). Northern Box Turtle. "Grant county; rare."
- " *Emys meleagris* (Ag.). Blanding's Tortoise. "Abundant on prairies."
- " *Chrysemys marginata* (Ag.). Western Painted Turtle. "Abundant everywhere."
- " *Malacoclemmys geographicus* (Le Sueur). Moss Turtle. "Grant county; rare."
- " *M. pseudo-geographicus* (Holbrook). Le Sueur's Moss Turtle. "Grant county; not rare."
- " *Aromochelys odoratus* (Latreille). Musk Turtle. "Grant county; rare."
- 423 *Chelydra serpentina* (Linnaeus). Common Snapping Turtle. "Abundant everywhere."
- " *Macrochelys lacertina* (Schw.). Loggerhead Snapper. - This ferocious turtle is occasionally found in the Mississippi river as far north as the mouth of the Wisconsin.
- " *Aspionectes spinifer* (Le Sueur). Common Soft-shelled Turtle. "Western part of the state; not rare."
- " *Amyda natica* (Le S.). Leather Turtle. All of the tributaries of the Mississippi river within the state; common.
- " *Eumeces septentrionalis* (Baird). Northern Bluetailed Skink. "Not uncommon as far north as Lake Winnebago."
- " *Sceloporus undulatus* (Harlan). Pine Tree Lizard. I have one specimen, sent from Fayette county in 1850, which is the only one I have seen from the state.
- " *Ophiosaurus ventralis* (L.). Glass Snake. * * * * In the early days they were not uncommon near Kenosha. They occur in the western part of the state as far north as La Crosse.
- " *Heterodon platyphimus* (Latreille). Blowing Adder.
- " *serpens* (L.). Hog-nosed Viper. Found in dry, sandy locations.
- 424 *Tropidonotus sipedon* (L.). Abundant; they destroy many fish.
- " *lebeis* (L.). Striped Water Snake.
- " *Grahami* (Baird & Girard). Graham's Snake.
- " *Tropidoclonium kirtlandi* (Kennicott). Kirtland's Red Snake.
- " *Storeria occipitomaculata* (Storer). Red-bellied Snake. Abundant.
- " *S. DeKayi* (Holbrook). De Kay's Brown Snake. Common.
- " *Eutaenia Fairayi* (B. and G.). Fairie's Garter Snake. Grant county.
- " *E. proxima* (Say). Say's Garter Snake. Southern countries.
- " *E. radix* (B. and G.). Hoag's Garter Snake. Abundant in vicinity of Racine.
- " *E. sirtalis* (L.). Common Garter Snake. Abundant; found as far north as the shores of Lake Superior.

- Bascarium constrictor* (L.). Blue Racer. Occasionally meet with in southern counties.
- " *Ptygophis Sayi* (Schlegel). Western Pine Snake. A large species. In early days it was common in the western part of the state; now rare. This species reaches six feet in length.
- " *Scotophis Alleghaniensis* (Holbrook). Black Snake.
- " *S. vulpinus* (B. and G.). Fox Snake. x x x Common on prairies.
- " *Liopeltis vernalis* (De Kay). Green Snake. A common, beautiful species.
- " *Ophibolus eximia* (De Kay). Milk Snake. Common.
- " *Crotalus durissus* (Cinct.). Yellow Rattlesnake. x x "still common."
- 425 *Crotaphophorus tergemina* (Say). Massasauga. This species inhabits marshy, grassy prairies where meadow mice live, in which they almost exclusively subsist. Their bite is not fatal, but causes great swelling and irritation. They are becoming rare, but were once abundant.
- " *Rana haleria* (Kalm). Leopard Frog. Common throughout the state.
- " *R. fontinalis* (Le Conte). Green Frog. A large, common species.
- " *R. sylvatica* (Le C.). Wood Frog. Abundant.
- " *R. pipiens* (Ant.). Bull Frog. Common and well known on account of his rich bass voice.
- " *R. nigricans* (Agassiz). Black Frog. Prof. Agassiz determined a specimen caught at Racine as the *nigricans*; rare.
- " *Hyla varicolor* (Le Conte). Common Tree Toad. Abundant.
- " *H. Pickeringii* (Holbrook). Pickering's Tree Toad. Abundant. [etc.]
- " *Phorophilus triseriatus* (Wied). Striped Tree Frog. Common.
- " *C. maculatus* (Agassiz). Spotted Tree Frog. Found on Lake Superior.
- " *Bufo Americanus* (Le C.). Common Toad. A common & beautiful animal.
- 426 *Dumetia viridescens* (Raf.). Spotted Triton. Found in ponds and brooks.
- " *D. miniatus* (Raf.). Red Eft. Eft. Found with the above.
- " *Desmidaetia scutatum* (Schluter). Four-toed Salamander. Found at Racine.
- " *Plithodon glutinosus* (Green). Viscid Salamander. Found at Racine.
- " *Spelerpes bilineatus* (Green). Two-striped Salamander. do
- " *S. longicaudus* (Green). Long-tailed Salamander. do
- " *S. ruber* (Daudin). Red Triton. do
- " *Amblystoma opacum* (Gravenhorst). Opaque Salamander. do
- " *A. punctatum* (L.). Large Spotted Salamander. do
- " *A. Jeffersonianum* (Green). Jefferson's Salamander. do
- " *A. luridum* (Sager). The Great Salamander. This is probably the largest Salamander found in the United States.
- " *Necturus lateralis* (Say). Mud Pudding.

Specimens of Sorex.

✓ 952	Ht. Snelling, Minn.	Oct. 2, 1890.	♂	Rifle Camp Ground.
✓ 953	do	do	♂	do
✓ 954	do	do	♂	do
✓ 955	do	do	♀	do
✓ 1061	do	Oct. 20, 1890.	♂ ad.	
✓ 1076	do	Oct. 22, 1890.	♀ ad.	Slough (marsh) of Minn. River.
1101	cooperi.	Oct. 28, 1890.	♀	do
1103	"	Oct. 29, 1890.	♂	do
1106	"	Oct. 30, 1890.	♀ ad. (♀)	♂
✓ 1109	do	Oct. 31, 1890.	♂ ad.	Sloughy marsh of Minn. River.
1149	do	Nov. 24, 1890.	♀	
1154	do	Nov. 28, 1890.	♀	
1155	do	do	♀	
✓ 1175	do	Nov. 29, 1890.	♀	
1176	do	do	♀	
1177	do	do	♂	
1191	do	Nov. 30, 1890.	♀	

Sparrow Hawks (Falco sparverius) Examined:-

From Mr. George D. Bennett.

760	♂	Erie	Pa.
761	♂	Corpus Christi	Tex.
762	♀	Lomita	Tex.
3564	♂	Laredo	Tex.
3565	♂	Laredo	Tex.
3566	♂	Rio Hondo	Tex.
3567	♀	Rio Hondo	Tex.
3921	♂	Bee Co.	Tex.
4057	♀	Nueces Co.	Tex.
4058	♀	Nueces Co.	Tex.
4304	♀	San Angelo	Tex.
5548	♂	Erie	Pa.
5549	♀	Erie	Pa.
5550	♀	Erie	Pa.
6307	♂	Brownsville	Tex.
6589	♂	Lee Co.	Tex.
6590	♂	Lee Co.	Tex.
3922	♀	Bee Co.	Tex.

From Am. Mus. Nat. Hist., N. Y. -

51661	♀ ad.	Fort Verde	Arizona
51659	♂ ad.	do	do
51634	♀ ad.	Cherry Creek	do
51666	♀ ad.	Fort Verde	do
51	♂	Denver	Colorado
49864	♀	Dry Tortugas	Fla.
29564	♂	Pinal Co.	Arizona.
29571	♂	do	do
29568	♂	do	do
29569	♂	do	do
25341	♂	Fort Gates,	Fla.
47324	♀	Ducks.	British Columbia
47322	♀	"	do
47327	♂	"	do
47323	♀	"	do
47325	♀	"	do
47326	♀	"	do
47328	♀	"	do
51637	♂	Fort Verde	Arizona
51650	♂ juv.	do	do
51630	♂ ad.	Circleville	Ohio
51637	♂	Fort Verde	Arizona
51632	♂	do	"
51658	♂ ad.	do	"
51655	♂ ad.	do	"
51654	♂ ad.	do	"
51667	♂ ad.	do	"
51668	♂ ad.	do	"
51665	♂ ad.	do	"
51664	♂ juv.	do	"
51653	♂ ad.	Catawact Creek	"
51635	♀	Fort Verde	"
51660	♀ ad.	do	"
51663	♀ ad.	do	"
51652	♂ juv.	do	"
51662	♂ juv.	do	"
51567	♂ ad.	do	"
51560	♂ ad.	Fort Apache	"
51649	♂ juv.	Fort Verde	"

Ducks
 Ft. Verde,
 do
 do
 do
 Gila River
 Ft. Verde
 do
 do
 do
 do
 do
 do
 Whipple Barracks
 Fort Verde
 do
 Gainesville
 "
 "
 "
 "
 "
 "
 "
 "
 Pine Island
 Gainesville
 "
 Ft. Myers
 Gainesville
 "
 Engelwood
 New York

From Smithsonian - Concluded from p. 21.

76482	7. A. Ober
116196	Ed. Touraine
26922	W. S. Winter

June "♀ and 1 egg" Nova Scotia
(List of Sparrow-Hawks continued on p. 27.)

British Columbia
Arizona.

4
4
4
4
4
4
4
4
4
4
4
4

"
Fla.

N. Jersey
New York

✓ Guadeloupe
✓ Sts. Magellan

From G. S. Miller Jr. —

5260 ♂	March 17, 1890	Citronelle
5306 ♂	April 10, 1887	Miakka
5261 ♀	March 17, 1890	Citronelle
3433 ♂	Aug. 10, 1886	Larmer Co.
4974 ♀	Sept. 8, 1889	Island Station
4975 ♀	?	do
4959 ♀	April 13, 1890	North Yuro
4965 ♂	April, 1890	do
5304 ♂	Aug. 28, 1889	Preston
5305 ♀	Aug. 24, 1889	"

From Charles W. Richmond.—

✓ 992 ♂	Aug. 6, 1888	Bozeman
✓ 974 ♂	Aug. 5, 1888	"
✓ 1114 ♂	Aug. 24, 1888	Near Hillsdale
✓ 1222 ♂	Sept. 9, 1888	Gallatin Sta.
✓ 996 ♂	Aug. 8, 1888	Bozeman
✓ 1221 ♂	Sept. 9, 1888	Gallatin Sta.
✓ 975 ♀	Aug. 5, 1888	Bozeman
✓ 995 ♀	Aug. 8, 1888	"
✓ 979 ♀	Aug. 5, 1888	"
✓ 1067 ♀	Aug. 17, 1888	Near Hillsdale
✓ 2564 ♂ ad.	Jan. 6, 1891	Sandy Spring
✓ 179 ♂	Sept. 20, 1886	Washington
✓ 1473 ♀ ad.	Dec. 18, 1888	Sandy Spring
✓ 2633 ♀	Dec. 13, 1890.	do

2565 ♀ ad. Jan. 6, 1891 ^{do} Madison R. ^{to} Station.
 1273 ♂ Sept. 7, 1888
 4 from H. C. Brown (Framingham, Mass.). —
 6 ♂ ad. Mar. 10, 1851 Miami
 7 ♀ ad. Feb. 1851 Key West
 (2 spec. mailed July 6, 1891)

From D. Kohn (New Orleans, La.). -

none 16 Nov. 15, 1889 Covington
" 17 Oct. 31, 1888 New Orleans (Lake Shore)
" 18 July 1, 1888 Madisonville
" 19 Oct. 13, 1876 "
" 20 June 26, 1888 "
" 21 Jan. 12, 1866 Plaquemine's Parish (Deer Range Plantation)
" 22 July 11, 1888 Madisonville
" 23 Dec. 15, 1890 "
" 24 Jan. 12, 1866 Plaquemine's Parish (Deer Range Plantation).
" 25 July 18, 1888 Madisonville
" 26 Jan. 1866 Plaquemine's Parish (Deer Range Plantation).

11 specimens
Returned
July 6, 1891

Montana

16

11

11

"

66

13

8

11

(1)

Med.

22

Med.

11

7

Fla.

11

La

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11

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11
12

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61

2.

67405	♀ ad.	Dr. E. Coues.	Near mouth of Milk River June 30
65906	♀ juv.	"	Louis River. Aug 17 1873
67406	♀ ad.	"	Chief Mt. Lake, August 18.
10757	♀ ad.	C. Drexler	Fort Bridger, Sept. 6 1857.
10488	♀ ad.	Capt. C. Bendire	Fort Center, April 8, 1885.
18297	♂ ad.	J. A. Mullan	Fort Benton "John Pearsall"
10753	♀ ad.	C. Drexler	Fort Bridger, May 2, 1858.
38258	♀ ad.	R. B. Hertz	Laramie Peak. June 20, 1864.
38264	♂ ad.	"	Fort Laramie, June 20, 1864.
82461	♂ ad.	Capt. C. Bendire	Walla Walla, Dec. 22, 1880
84468	♂ ad.	R. Ridgway	Carson City. April 18, 1868
84469	♀ ad.	"	Carson City. April 4, 1868
84470	♂ juv.	"	Truckee Valley. Aug. 6, 1867
84471	♀ juv.	"	July 26, 1867.
94988	♂ juv.	Capt. C. Bendire	Fort Klamath, Aug 26, 1883
95989	♂ juv.	"	Fort Klamath, Aug. 22, 1883
73636	♂ ad.	G. B. Bennett	Date?
80077	♂ ad.	C. H. Ross.	Date?
3841	♂ ad.	J. H. ?	P. M. R. La. June 1853
84472	♂ ad.	R. Ridgway	Ht. Whipple. E. Coues May 24, 1865
84473	♂ ad.	"	" April 10, 1865
84474	♀ ad.	"	Fort Whipple Mar. 11, 1865
69065	♂ juv.	H. W. Henshaw.	Camp Apache, Oct 26, 1874
99240	♀ ad.	E. W. Nelson	Fort Lowell May 24, 1884
99238	♀ ad.	"	" " " "
99239	♀ ad.	"	" " " "
119803	♂ ad.	H. W. Henshaw.	Fort Grant. Sep. 26, 1873
67241	♀ ad.	"	Fort Garland. May 28 1873
69064	♀ ad.	C. C. Aiken	Pueblo. July 23, 1874.
69067	♀ ad.	H. W. Henshaw	Denver
32293	♂ juv.	M. S. Kenzie	Moose Factory H. B. 1862
31358	♂	J. C. Clarke	Fort Ray - Mother and four eggs. June 9, 1863
29579		C. Wright	
117748			
42420		A. P. Blumglor	
80950		J. A. Ober	
52821		Col. Grayson	Mazatlan, "var deserticolous"
37427	♂ ad.	Prof. Sumichrast	Orizaba, Jan 28, 1865
41760	♂ ad.	Dr. A. Schott	Merida, Yucatan

Dakota

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" "

" "

" "

Montana

Montana

Wyoming

" "

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Washington D.

Nevada

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" "

" "

Oregon

" "

Texas

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Louisiana

Arizona

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Colorado

" "

" "

" "

Port. America

" "

Cuba

" "

Hayti

St. Eustatius

Mexico

" "

" "

52822 ♂ ad.

59503 ♀ ad.

37426 ♀ ad.

39173 ♀ ad.

61366 ♀ ad.

105476 ♀ ad.

89771 ♀

101946 ♀ ad.

90403 ♂ ad.

33213 ♂ ad.

29526 ♀ ad.

67873 ♂ ad.

42774 ♀

49193 ♂ ad.

84475 ♂ juv.

84476 ♀ ad.

103352 ♀ ad.

103358 ♂ juv.

103357 ♂ ad.

50941

50942

50943

50944

115233

16570

16569

39952

48819

48820

48821

37349

63621

101309

45694

49509

119801

119802

20936

107200

107201

90160

Col. Grayson

Prof. Sumichrast

" "

Dr. A. Schott

Prof. Duges

C. C. Netting

J. C. Zedon

Dr. Van Patten

J. Carniol

Berlin Museum

Prof. Gabb

H. Hague

" "

R. Ridgway

" "

Miles Rock

" "

" "

Albuquerque

" "

" "

" "

Townsend & Lee

W. Evans

" "

W. S. Smith

Nat. Mus. Chile

" "

" "

" "

" "

" "

Hon. F. M. Jones

Dr. W. H. Jones

W. H. Henderson

" "

Capt. Page.

" "

" "

P. L. Sclater

" "

" "

" "

Mazatlan "var deserticolous"

Lechantepec City, Oct. 10, 1869

Orizaba, Jan 27, 1845

Merida, Yucatan. Mar. 21, 1865.

Calobri-Veragua "Arce". 1869

Tupaturo Guanojuato, Mex.

San Juan del Rio. Jan 11, 1883.

Pacaca

"♀ juv."

San Jose,

Talamasca

Central Guatemala (Coban to Chusac)

" "

Mr. Van Patten.

Mr. Van Patten.

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Brazil.

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Bogota

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Peru

Chile

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Ecuador

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Buenos Ayres

Argentine Republic

Paraguay

" "

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Pernambuco

" "

British Guyana

(Completed at bottom P. 21.)

Mexico

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Nicaragua

Costa Rica

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Guatemala

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Brazil.

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Bogota

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Peru

Chile

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Ecuador

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Buenos Ayres

Argentine Republic

Paraguay

" "

" "

Pernambuco

" "

British Guyana

(Completed at bottom P. 21.)

22 Specimens of Gallinago Examined:—

From Am. Mus. Nat. Hist.—

51154 ♀ ad. Ft. Verde
51166 ♂ ad. do
51168 ♀ ad. do
51157 ♂ ad. Peek's Lake
51156 ♂ ad. Ft. Verde,
45584 Mexico

30303 ♂ Pinal Co.

25693 ♀

30304 ♀ Tucson

45585

45588

45587 ♂

45586

45591

45590 ♀

30010 ♀

30011 ♀

26946 ♂

51167 ♂ ad. Ft. Verde

51158 ♀ ad. Peek's Lake

51148 ♂ ad. Ft. Verde

51151 ♀ ad. do

51159 ♂ ad. Peek's Lake

51149 ♂ ad. Ft. Verde

51161 ♀ ad. Peek's Lake

51160 ♀ ad. do

51163 ♂ ad. do

51147 ♂ ad. Ft. Verde

51150 ♂ ad. do

51152 ♂ ad. Peek's Lake

51169 Whipple Barracks

51162 ♀ ad. Peek's Lake

51153 ♀ ad. do

51164 ♂ ad. do

51155 ♀ ad. Ft. Verde,

51165 ♀ ad. do

26944 ♂ Archangel

26945 Karnak

Arizona

"

"

"

"

Mexico

Arizona

California

Arizona

Texas

Panama

"

Mexico

Panama

Behring Id.

do

Orkney

Arizona

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349 ♂

477 ♂

474

478 ♀

479 ♀

480 ♀

From R. W. Shufeldt.—

From G. S. Miller, Jr.—

4468 ♀ Oct. 3, 1889 North Truro

4529 ♂ Oct. 8, 1889 do

From Edgar A. Mearns.—

6851 ♀ ad. May 6, 1890 Fort Snelling

7242 ♀ ad. Nov. 13, 1890 do

From G. Kohr (New Orleans, La.)—

none ♂ Dec. 26, 1867 New Orleans

none ♀ Nov. 26, 1865 do

none ♂ March 12, 1874 do

From Jno. H. Sage (Portland, Conn.)—

1052 ♂ Oct. 26, 1887 Portland.

1520 ♀ Oct. 1, 1890 "

1519 ♂ do "

1684 ♀ Oct. 13, 1890 "

1053 ♂ Oct. 26, 1887 "

1051 ♂ Oct. 26, 1887 "

1518 ♀ Oct. 1, 1889 "

1009 ♂ Sept. 9, 1887 Wethersfield

1652 ♂ Oct. 10, 1890 Portland

1683 ♂ Oct. 13, 1890 "

1008 ♂ Sept. 9, 1887 Wethersfield

Fla.

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N. M.

Mass.

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Minn.

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La.

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Conn.

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Specimens of *Ballus virginianus* Examined:—

From George B. Sennett.—

350	♂	Erie	Pa.
351	♀	"	"
6125	♀	Corpus Christi	Texas.
From <u>Am. Mus. Nat. Hist.</u> —			
51080	♀ ad.	Peeke's Lake	Arizona
51078	♀ ad.	do	"
51076	♀ ad.	do	"
51075	♀ ad.	do	"
51081	♀ ad.	do	"
51077	♀ ad.	do	"
51074	♂ ad.	do	"
51079	♀ ad.	do	"
51082	♂ ad.	do	"
26543	♂ ad.	Tucson	"
45669		Ht. Randall	N. Dakota.
45668		?	
45667		?	
26316		?	

From Edgar A. Mearns.—

From Jno. H. Sage.—
 1018 ♀ Sept. 26, 1887 Essex Conn.
 1449 ♀ juv. Sept. 18, 1890 Portland "

List of Sparrow Hawks Examined (continued from p. 27)

From <u>Jno. H. Sage</u> .—			
257	♂	Sept. 24, 1876	Portland, Connecticut Conn.
345	♂	Oct. 6, 1877	do 10.50 X 22.62 X 7.50. "
389	♂	March 11, 1878	East Windsor Hill (10.75 X 22.75 X 7.25) Contained remaining of a mouse. "
731	♂	Sept. 4, 1886	do Nothing in stomach. "
939	♂	April 12, 1887	Portland, Conn. { Contained remains of insects and mice. }
1876	♂	March 7, 1891	do "
177	♀	Apr. 17, 1875	do 11.35 X 24. X 7.62. "
1446	♀	Sept. 10, 1890	do { Contained Short-tailed Shrew, 10 crickets + trace of grasshoppers. }

From G. H. Ragsdale.—

♂ ad., Dec. 29, 1884 Cook County Texas.
 Length 10.5. Wing 7.3. Tail 5.3.
 Iris dark. Legs orange. Bill blue-black.
 Gape orange. Tarsus + toes orange. "
 Large crown patch; nearly unspotted below, and deep ochraceous.
 Returned by E. J. July 3, 1891.
 Letter same day.

Mr. J. R. Taylor at 90 William St., Rochester, New York.
 Kindly offered mounted Sparrow Hawks, which were not accepted.

From Frank X. Holzner.

3	♀	Sept. 11, 1891	Healinton, Minnesota Minnesota
4	♂	Sept. 9, 1891	do "
5	♀	Sept. 11, 1891	do "

Shells sent to Wm. H. Dall for Identification;
Sept. 5, 1891.

101. *Anodonta corpulenta*, Couper. "Compressed."
Minnesota River at Ft. Snelling, Minn. Aug. 10, 1888.
102. *Unio anodontoides*, Lea.
Minnesota River at Ft. Snelling, Minn. (1½ m. from mouth). May 27, 1891.
103. *Anodonta imbecillis*, Say.
Minnesota River ½ miles from mouth. May 27, 1891.
104. *Unio gracilis*, Barnes.
Minnesota River at Ft. Snelling, Minn. Aug. 10, 1888.
105. *Unio plicatus*, Le Sueur.
Minnesota River at Ft. Snelling, Minn. May 27, 1891.
106. *Unio luteolus*, Lam.
Minnesota River, 2 m. from mouth. May 27, 1891.
107. *Unio alatus*, Say. Largest retained specimen 165 x 30 mm.
Pillsbury Id., at junction of Minn. R. with Miss. River. Aug. 21, 1888.
108. *Unio gracilis*, Lea Barnes.
109. *Unio alatus*, Say. August 21, 1888.
109. *Unio alatus*, Say? *Anodonta edentula*, Say.
Minnesota River. May 11, 1891.
110. *Unio Anodonta plana*, Lea.
Minnesota River at Ft. Snelling. Aug. 29, 1891. {3 sent and 3 retained.
111. *Unio subovatus*, Lea? *ventricosus*, Bar.
Minnesota River, near its mouth. Oct., 1889.
112. *Unio subovatus*, Lea. = *ventricosus*, Bar. (Spec. retained.)
Lemonweir River at Camp Douglas, Juneau Co., Wis. July 14, 1890.
113. *Unio luteolus*, Lam.
Minnesota River at Ft. Snelling, Minn. Aug. 29, 1891.
114. *Margaritana marginata*, Say.
Minnesota River at Ft. Snelling, Minn. 1888. (1 Valve sent + 1 returned.)
115. *Unio gibbosus*, Bar. (Bivalve; no. written on shell.)
Mississippi Riv. at Ft. Snelling, Minn. 1889. dead shell
116. *Unio asperimus*, Lea.
Minnesota River at Ft. Snelling, Minn. Oct., 1889.
117. *Unio plicatus*, Le Sueur.
Minnesota River at Ft. Snelling, Minn. Aug. 10, 1888.
118. *Unio ligamentinus*, Lam.
Minnesota River at Ft. Snelling, Minn. Oct., 1888. (two spec. retained)
119. *Unio Anodonta edentula*, Say.
Minnesota River at Ft. Snelling, Minn. Oct., 1888. {3 sent; 12 retained.

120. *Unio luteolus*?, Lam. {one sent, and several retained.
Minnesota River at Ft. Snelling. October 10, 1888.
121. *Unio ligamentinus*, Lam. {one sent and (probably) several retained.
Minnesota River at Ft. Snelling. Oct. 10, 1888.
122. *Sphaerium sulcatum*, Say. {1 sent 2 retained
Ft. Snelling, Minn. April 6, 1890.
123. *Sphaerium sulcatum*, Say.
Lake Calhoun, near Ft. Snelling, Minn. April 20, 1890. {2 sent 4 retained.
124. *Sphaerium transversum*, Say.
Ft. Snelling, Minn. April 17, 1890. {6 sent 6 retained in glass tubes.
125. *Sphaerium similis*, Say. Young = *sulcatum*, Say.
Ft. Snelling, Minn. April 17, 1890. {many sent; many retained. (A stagnant lake.)
126. *Sphaerium rhomboideum*, Say.
Ft. Snelling, Minn. April 17, 1890. {2½ sent + 4 retained. (A stagnant lake.)
127. *Sphaerium occidentale*, Prime.
Target range at Ft. Snelling, Minn. April 15, 1890. Dead shells.
128. *Sphaerium solidulum*, Prime.
Minnesota River at Ft. Snelling, Minn. Aug. 29, 1891.
129. *Sphaerium solidulum*, Prime.
Minnesota River at Ft. Snelling, Minn. Aug. 29, 1891.
130. *Unio parvus*, Bar.
Minnesota River at Ft. Snelling, Minn. Aug. 29, 1891. {5 sent + several retained.
131. *Limnæa humilis*, Say. (See "Random Notes" III, p. 86.
Target Range Ft. Snelling, Minn. Dead shells, Apr. 15, 1890.
132. *Physa heterostrophæ*, Say.
Pillsbury Id. at mouth of Minnesota River, Minn. 1889 (dead shells.)
133. *Planorbis (Segmentaria) armigera*, Say.
Lake Amelia, near Ft. Snelling, Minn. May 11, 1891.
134. *Aplexa hypnorum*, L.
Target range, Ft. Snelling, Minn. Dead shells Apr. 15, 1890.
135. *Limnæa reflexa*, Say. $\frac{7}{8}$
Target range, Ft. Snelling, Minn. Dead shells Apr. 15, 1890.
136. *Planorbis Lewisii*, Lea.
Attached to logs in Minnesota River. Living shells Aug. 17, 1891; dead shells Apr. 16, 1890.
137. *Helix monodon* Rackett. ^{all} Ft. Snelling, Minn. Dead shells and 1 living.
The latter much larger (several like it retained). See Random Notes, p. 47.
138. *Campyloma subsolida* Auth. Ft. Snelling Minn. May 29, 1891. {2 spec.
139. *Limnæa stagnalis*, Linn. Ft. Snelling, Minn. Aug. 29, 1891. many spec.
140. *Planorbis trivolvis*, Say. ^{very large} Ft. Snelling, Minn. April 20, 1890. "
141. " *brearinatus*, Say.
(Concluded on page 104.)

No. Grasses and Sedges. -

- # Ft. Snelling, Minn. Aug. 2, 1890. (specimen retained).
 1 Andropogon provincialis fide Vasey.
 # Ft. Snelling, Minn. Aug. 2, 1890 (spec. ret.).
 2 Elymus Virginicus fide Vasey.
 # Ft. Snelling, Minn. July 30, 1890 (spec. retained).
 3 Calamagrostis longifolia fide Vasey.
 # Ft. Snelling, Minn. Aug. 3, 1890. (spec. retained).
 4 Elymus Canadensis fide Vasey.
 # Ft. Snelling, Minn. Aug. July 30, 1890. (spec. retained).
 5 Beckmannia tribuloides fide Vasey (Sand-burr Grass).
 # Camp Douglas, Wis. July 12, 1890 (retained).
 # Ft. Snelling, Minn. July 30, 1890. (Spec. retained).
 6 Pectaria viridis fide Vasey.
 # Camp Douglas, Wisconsin. July 11, 1890. (spec. retained).
 7 Agrostis scabra fide Vasey.
 # Camp Douglas, Wisconsin. July 11, 1890 (spec. retained).
 8 Carex folliculata fide J. M. H.
 # Camp Douglas, Wis. July 27, 1890. (spec. retained).
 9 Eragrostis major fide Vasey.
 # Camp Douglas, Wis. Sept. 13, 1890. (spec. retained).
 10 Eragrostis pilosa (= E. Purshii of authors) fide Vasey.
 # Camp Douglas, Wis. Aug. 20, 1890 (spec. retained). ^{apparently the same as No. 1, from Ft. Snelling.}
 11 Andropogon provincialis fide Vasey.
 # Camp Douglas, Wis. Aug. 22, 1890 (spec. retained). ^{apparently the same as No. 1, from Ft. Snelling.}
 12 Elymus mutans fide Vasey.
 # Fort Snelling, Minn. 1890. (spec. retained). ^{A very small sedge, growing on sandy shore of Minn. Riv.}
 13 Cyperus aristatus, Rottb. fide J. M. H.
 # Camp Douglas, Wis. July 12, 1890. (spec. retained). ^{Also identified by F. V. Coville.}
 14 Agropyron Caninum fide Vasey.
 # Camp Douglas Wis. July 12, 1890. (spec. retained).
 15 Bromus Kalmii L. fide Vasey.
 16 Camp Douglas, Wis. July 12, 1890 (spec. retained).
 16 "too green" Vasey.
 # Camp Douglas, Wis. - Aug. 22, 1890 (spec. retained).
 # Juncus Canadensis v. longicauda fide J. M. H.
 # Camp Douglas, Juneau Co., Wis. Sept. 11, 1890 (spec. retained).
 18 Eriophorum cyperianum, L. fide J. M. H.
 # Camp Douglas, Juneau Co., Wis. July 7, 1890. (spec. retained).
 19 Carex straminea, Willd. fide J. M. H.

- 20 Cyperus filiculmis, Vahl. fide J. M. H.
 Camp Douglas, Wis. July 10, 1890 (spec. retained).
 21 Glyceria Canadensis, Trin. fide Vasey.
 Camp Douglas, Wis. July 26, 1890 (spec. retained but date July 14).
 22 Eleocharis ovata, R. Br. fide J. M. H.
 Camp Douglas, Wis. Aug. 20, 1890. (spec. retained).
 23 Carex straminea, Willd. fide J. M. H.
 Camp Douglas, Wis. July 11, 1890 (spec. retained).
 24 "too imperfect - no flowers." Vasey.
 Camp Douglas, Wis. July 25, 1890. (spec. retained).
 25 Panicum dichotomum, Linn. fide Vasey.
 Camp Douglas, Wis. Aug. 20, 1890 (spec. retained).
 26 Agrostis scabra fide Vasey.
 Camp Douglas, Wis. July 12, 1890. (spec. retained).
 27 Calamagrostis Canadensis Vasey.
 Camp Douglas, Wis. July 12, 1890 (spec. retained).
 28 Cyperus Leggati "Undetermined; will send name soon." fide J. M. H.
 Camp Douglas, Wis. Aug. 25, 1890. (spec. preserved).
 Note. - Ten (10) specimens of grasses and sedges, in addition to the 28 numbered above, were sent to Dr. Geo. Vasey for identification, on February 25, 1890, all of the sedges to be returned ^{together} with these ten of which I have no duplicates, the rest to be kept.
 29 Eriophorum Virginicum July 25 and
 Camp Douglas, Wis. Aug. 29-90.
 30 Eriophorum gracile Rich. do July 25, 1890
 31 Scirpus atrovirens Ft. Snelling, Minn. July 10, 1889.
 32 Juncus scirpus tenuis Camp Douglas, Wis. July 7, 1890.
 33 Carex utriculata, Boott. Camp Douglas, Wis. July 25, 1890.
 34 Carex filiformis, L. Camp Douglas, Wis. July 14, 1890.
 35 Agrostis vulgaris fide Vasey. Camp Douglas, Wis. July 2, 1890.
 36 Agrostis - "probably alba - pale 3/8 as long as glume." fide Vasey.
 Camp Douglas, Juneau Co., Wisconsin.
 37 Elymus condensatus, Presl. fide Vasey. Yellowstone Riv. Mont. 7-26-89.
 38 Bouteloua oligostachya fide Vasey. Ft. Custer, Mont. July 24, 1889.
 39 Panicum Erus-galli var. muticum fide Vasey.
 Ft. Snelling, Minn. Aug. 15, 1889.

Cryptogamous Plants:—

Equisetaceae.—

- 41 Equisetum
Camp Douglas, Wis. July 12, 1890 (spec. retained).
- 42 Equisetum
Fort Snelling, Minn. Aug. 2, 1890. (spec. retained).
- 43 Equisetum
Camp Douglas, Wis. July 11, 1890 (spec. retained).
- 44 Equisetum
Fort Snelling, Minnesota. Aug. 2, 1890 (spec. retained).
- 45 Equisetum limosum, L.
Camp Douglas, Wis. July 12, 1890. (spec. to be returned.) 4 spec.

Filices.—

- 46 Tamarack Swamp near Corcoran ("Camp French"), Minn.
Sept. 19, 1889. (spec. retained). ~~Mosses~~ ^{Aspidium cristatum, Sw. (M.B.)}
- 47 Osmunda regalis (Mrs. B.)
Camp Douglas, Wis. July 11, 1890. (Spec. retained).
- 48 Asplenium Filix-foemina Benth. (Mrs. B.)
Fort Snelling, Minn. Aug. 3, 1890. (Spec. retained).
- 49 Woodsia Lvensis R. Br. (Mrs. B.)
Growing in crevices in cliff of Patedam Sandstone, in Camp Douglas,
Juneau Co., Wis. July 18, 1890. (spec. retained).
- 50 Osmunda Claytoniana, L. (Mrs. B.)
Camp Douglas, Wis. July 12, 1890 (spec. (single frond) retained).
- 51 Osmunda cinnamomea (Mrs. B.)
Camp Douglas, Wis. July 12, 1890 (spec. [a single frond] retained).
- 52 Aspidium Thelypteris (Mrs. B.)
Camp Douglas, Wis. July 25, 1890. (spec. retained). Cranberry Swamp.
- 53 Osmunda cinnamomea (Mrs. B.)
Camp Douglas, Wis. July 11, 1890. (spec. retained).
- Note.—Five (5) additional specimens were sent on to
be identified and returned.
- 54 Botrychium Virginicum. (N. L. B.)
Camp Douglas, Wis. July 12, 1890.
- 55 Botrychium Virginicum. (N. L. B.)
Minnehaha Falls, Minn. July 1, 1890
- 56 Botrychium ternatum. var. "N. L. B.)
Upper Basin, Yellowstone Park, Wyoming. July 30, 1889.
- 57 Botrychium ternatum. var. "N. L. B.)
Camp Douglas, Wis. July 12, 1890.
- 58 Orchis "N. L. B.)
Verde Mts., Ariz.

(List of Ferns continued on page 70.)

Orchidaceae.—

- 59 Microstylus ophioglossoides, Nutt. ^{Sept. 1, 1890. (N. L. Britton)}
Camp Douglas, Wis. (Determination to be confirmed and spec. returned).
- 60 Conaloshiza multiflora ? Nutt. (N. L. B.)
Camp Douglas, Wis. Aug. 20, 1890. (Specimen to be returned.)
- 61 Spiranthes Romanzoffiana Cham. (N. L. B.)
Upper Geyser Basin, Yellowstone National Park, Wyoming Terr.
July 28, 1889. (Spec. to be returned).
- 62 Spiranthes (cernua?).
Camp Douglas, Wis. Sept. 7, 1890. (specimens retained).
- 64 Spiranthes (latifolia?) cernua, L. (N. L. B.)
Camp Douglas, Wis. Sept. 7, 1890. (spec. to be returned).
- 65 Spiranthes gracilis, Bigelow. "Leaves not fugacious."
Camp Douglas, Juneau Co., Wisconsin. (spec. retained). ^{July} Aug. 25, 1890.
- 66 Spiranthes "Leaves fugacious."
Camp Douglas, Juneau Co., Wis. (Spec. to be returned). Sept. 1, 1890.
- 67 Goodyearia pubescens, R. Br.
Camp Douglas, Wis. Aug. 23, 1890. (spec. retained).
- 68 Calopogon pulchellus, R. Br.
Camp Douglas, Juneau Co., Wis. July 7, 1890. (spec. retained).
- 69 Pogonia ophioglossoides, Nutt.
Camp Douglas, Wis. July 25, 1890 (spec. retained).
- 70 Pogonia pendula, Lindl.
Camp Douglas, Wis. Sept. 7, 1890 (spec. retained).
- 71 Orchis spectabilis, L. Two spec, both retained—(a) fruiting from
Mendota, Minn. and (b) Fort Snelling, Minn. in flower.
- 72 Orchis rotundifolia, Pursh.?
Camp Douglas, Wis. July 16, 1890. (spec. to be returned) {^{nothing written on} label by Britton.
- 73 Heabmaria tridentata, Hook.
Camp Douglas, Wis. July 19, 1890. (spec. retained).
- 74 Heabmaria virescens, Spreng.
Camp Douglas, Wis. July 14, 1890. (spec. retained).
- 75 Heabmaria bracteata, R. Br.
Fort Snelling, Minn. June 18, 1888 (spec. retained).
- 76 Heabmaria bracteata, R. Br. (N. L. B.)
Camp Douglas, Wis. July 14, 1890 (Spec. to be returned).
- 77 Heabmaria hyperborea, L. Br.
Fort Snelling, Minn. June 20, 1888, and July 1, 1890.
(specimens retained.)

- 78 *Habenaria dilatata*, Gray. (W. L. B.)
Upper Geyser Basin, Yellowstone National Park, Wyoming Terr.
July 28, 1889. Fl. white: common in spruce woods (Spec. to be returned).
- 79 *Habenaria hookeri*, Torr. Nothing written on label by Britton.
Fort Snelling, Minn. June 12, 1890. (Spec. to be returned).
- 80 *Habenaria leucophora*, Gray.
Camp Douglas, Juneau Co., Wis. July 25, 1890 (Spec. retained).
- 81 *Habenaria lacera*, R. Br.
Camp Douglas, Wis. July 14, and July 25, 1890 (Spec. retained).
- 82 *Habenaria psycodes*, Gray. (82. a)
Mt. Snelling, Minn. July 18, 1888; and July 14, 1890. Camp Douglas,
Juneau Co., Wis. (specimens retained).
- 83 *Arethusa bulbosa*, L. June 22, 1889.
Mora, Kenabec Co., Minnesota (near Mille Lacs). (Spec. retained).
- 84 *Cypripedium candidum*, Muhl.
Mt. Snelling, Minn. June 1, 1890. (Spec. retained).
- 85 *Cypripedium parviflorum*, Salisb.
Mt. Snelling, Minn. June 11, 1890 (Spec. retained - June 1, 1890).
- 86 *Cypripedium pubescens*, Willd.
Mt. Snelling, Minn. June 11, 1890 (Spec. retained).
- 87 *Cypripedium spectabile*, Swartz.
Mt. Snelling, Minn. June 23, 1888; the specimen kept - not sent.
- 88 *Cypripedium acaule*, Ait.
Camp Douglas, Wis. July 16 and Aug. 30, 1890 (fruitages); and
Mt. Snelling, Minn. Mora, Kenabec Co., Minn. June 22, 1889
(flowering). Specimens all retained.

Compositae. —

- 89 *Solidago latifolia*, L.
Mt. Snelling, Minn. Sept. 15, 1890 and Sept. 19, 1889 (specimens retained).
- 90 *Solidago bicolor concolor*, Torr. & Gray.
Camp Douglas, Wis. July 26, 1890 (Spec. to be returned).
- 90 *Solidago*
Camp Douglas, Wis. July 14, 1890 (Spec. to be returned).
- 91 *Solidago stricta*, Ait.
Camp Douglas, Wis. July 1890 (Spec. to be returned).
- 92 *Solidago uliginosa*, Nutt.
Camp Douglas, Juneau Co., Wis. (Spec. retained).^{Sept. 11, 1890.} Sept. 9, 1890
- 93 *Solidago speciosa*, Nutt.
Mt. Snelling, Minn. Aug. 19, 1889 and Sept. 3, 1889. Camp Douglas,
Wisconsin, Sept. 13, 1890. (specimens retained.)

- 94 *Solidago speciosa*, Nutt. var. *angustata*, Torr. & Gray (N. L. B.)
Coon Creek, Minn. (Camp M. E. Pay). Sept. 1889.
(To be returned).
- 95 *Solidago patula*, Muhl.
Camp Douglas, Wis. Sept. 13, 1890 (Spec. retained; also Ft. Snelling Sept. 24, 1890).
- 96 *Solidago pincea*, Ait. Leaves smooth.
Camp Douglas, Wis. Sept. 9, 1890 (Spec. retained).
- 97 *Solidago pincea*, Ait. var. *serotina*, Gray. (N. L. B.)
Camp Douglas, Wis. Sept. 9, 1890 (Spec. retained).
- 98 *Solidago speciosa*. (N. L. B.)
Camp Douglas, Wis. Sept. 9, 1890 (Spec. to be returned).
- 99 *Solidago nemoralis*. (N. L. B.)
Camp Douglas, Wis. Sept. 9, 1890 (Spec. to be returned).
- 100 *Solidago missouriensis*, Nutt. = *S. bicolor concolor*. "N. L. B."
Camp Douglas, Wis. August 24, 1890. (Spec. to be returned).
- 101 *Solidago missouriensis*, Nutt.
Camp Douglas, Wis. Aug. 23, 1890; and Mt. Snelling, Minn. Aug. 4, 1889 (Spec. retained).
- 102 *Solidago serotina*, Ait. Mt. Snelling, Minn. Aug. 13, 1889.
The Camp Douglas specimen (Aug. 20) is the following variety
(*S. serotina*, var. *gigantea*).
- 103 *Solidago serotina*, Ait. var. *gigantea*, Gray.
Fort Snelling, Minn. Sept. 9, 1888, etc. Aug. 16, 1889 (Spec. retained).
- 104 *Solidago canadensis*, L. (Specimen retained).
Camp Douglas, Wis. July 25, 1890; Mt. Snelling, Minn. Aug. 13, 1889.
Britton wrote nothing on label.
- 105 *Solidago*
Mammoth Hot Springs, Yellowstone Park, Wyoming. July 26, 1889 (Spec. to be returned).
- 106 *Solidago multiradiata*, Ait. (N. L. B.)
Upper Geyser Basin, Yellowstone Park, Wyoming. July 28, 1889 (Spec. to be returned).
- 107 *Solidago nemoralis*, Ait. ?
Camp Douglas, Wis. Sept. 9, 1890. (Spec. to be returned).
- 108* *Solidago nemoralis*, Ait. ? (N. L. B.)
Camp Douglas, Wis. Sept. 13, 1890. (Spec. to be returned).
- 109 *Solidago nemoralis*, Ait.
Mt. Snelling, Minn. Aug. 15, 1889. (Spec. retained; also Spec. from Camp Douglas).
- 110 *Solidago rigida*, L.
Mt. Snelling, Minn. Aug. 30, 1888. (Spec. retained). This species
is common at Camp Douglas, but there are no specimens.
- 111 *Solidago Riddellii*, Frank.
Mt. Snelling, Minn. Sept. 21, 1890 (Spec. retained).
- * 108" *S. nemoralis* ?? Camp Douglas, Wis., July 26, 1890. N. L. B.

112 *Solidago lanceolata*, L.

Camp Douglas, Wis. Sept. 1, 1890 (spec. (Sept. 13th) retained; also spec. from Ft. Snelling).

113 *Eupatorium purpureum*, L.

Ft. Snelling, Minn. Sept. 4, 1889 (spec. retained; also spec. fr. P. Douglas).

114 *Eupatorium perfoliatum*, L.

(Spec. from Ft. Snelling, Minn. Aug. 28, 1889; spec. fr. Camp Douglas, Wisconsin, Aug. 23, 1890 — both retained; none sent.)

115 *Eupatorium ageratoides*, L.

Ft. Snelling, Minn. Aug. 11, 1889. (spec. retained).

116 *Eupatorium purpureum*.

(N. L. B.)

Ft. Snelling, Minn. Sept. 27, 1890 (spec. to be returned).

Everlastings.—117 *Gnaphalium obtusifolium* L. (= *G. polycephalum*).

(N. L. B.)

Camp Douglas, Wis. Aug. 23 (spec. retained).

118 *Gnaphalium uliginosum*, L.

(N. L. B.)

Camp Douglas, Wis. Sept. 7, 1890 (spec. retained).

✓ 119 *Antennaria plantaginifolia*.

(N. L. B.)

Ft. Snelling, Minn. Apr. 24, 1890 (spec. to be returned).

120

Upper Geyser Basin, Yellowstone Park, Wyo. July 28, 1889 (spec. to be returned).

121

Upper Geyser Basin, Yellowstone Park, Wyo. July 28, 1889 (spec. to be returned).

122

Gibbon Falls, Yellowstone Park, Wyo. July 27, 1889 (spec. to be returned).

123 *Nabalus Prenanthes racemosa*, Michx.

(N. L. B.)

Camp Douglas, Wis. Sept. 13, 1890. (spec. retained).

124 *Nabalus Prenanthes alba* L.

(N. L. B.)

Ft. Snelling, Minn. Aug. 27, 1889, Sept. 15, 1890; Camp Douglas, Wis. Sept. 8 + 9, 1890. (specimens retained).

Thistles.—125 *Cnicus theillii*, Carby. (N. L. B.)

'Pasture Thistle.'

Ft. Snelling, Minn. Aug. 7, 1890 (range-house on target-ground) (spec. retained).

126 *Cnicus altissimus*.

(N. L. B.)

Ft. Snelling, Minn. Aug. 4, 1890. (spec. to be returned. The detached head on same sheet is from Camp Douglas, Wis. The common roadside-thistle.)

253 *Lappa officinalis*, Allioni, Var. *major*. (See p. 45.) 37127 *C. nuticus*, Pursh.

(N. L. B.)

Ft. Snelling, Minn. Aug. 29, 1889. A common, slender, swamp thistle, with very different leaves from the Camp Douglas specimens (specimen to be returned).

128 *C. nuticus*, Pursh.

(N. L. B.) "Swamp Thistle".

Camp Douglas, Juneau Co., Wis. Aug. 29, 1890. (spec. to be returned).

129 *Cnicus altissimus*, Willd.

Camp Douglas, Wis. Aug. 20, 1890 (spec. to be returned).

130

Upper Geyser Basin, Yellowstone Park, Wyoming. "Hedeled Thistle". July 28, 1889 (spec. to be returned.)

131

Windsor, Stutsman Co., North Dakota. July 22, 1889 (spec. to be returned).

Artemisia.—132 *Artemisia ludoviciana*, Nutt. (White woolly both sides).

Ft. Snelling, Minn. Sept. 30, 1890. (spec. retained. Found at Camp Douglas).

133 *Artemisia ludoviciana*, Nutt. (Leaves green on top).

Ft. Snelling, Minn. Sept. 30, 1890. (spec. retained).

✓ 134 *Artemisia biennis*, Willd.

(N. L. B.)

Camp Douglas, Wis. Sept. 7, 1890 (spec. retained, July 14, 1890; and one from Ft. Snelling, Minn. Sept. 17, 1890. Common at both places.)

135 *Artemisia frigida*, Willd.

Ft. Snelling, Minn. Sept. 17, 1889. (specimens retained).

✓ 136 *Artemisia dracunculoides*, Pursh.

(N. L. B.)

Ft. Snelling, Minn. Sept. 17, 1890 (spec. retained).

✓ 137 *Artemisia dracunculoides*, Pursh.

(N. L. B.)

Camp Douglas, Wis. Sept. 13, 1890 (spec. retained).

138 *Artemisia cana*

Fort Ruster, on the Big Horn River, Montana. July 25, 1889 (spec. to be retained).

Liatris.—139 *Liatris cylindracea*, Michx.

Camp Douglas, Wis. July 16, etc., 1890 (spec. retained).

140 *Liatris punctata*, Hook.

Ft. Snelling, Minn. Sept. 1, 1888 (spec. retained.)

141 *Liatris scariosa*, Willd.

Camp Douglas, Wis., Aug. 20, 1890; Ft. Snelling, Minn. Aug. 4, 1889 (specimens retained).

- 142 *Liatris pycnostachya*, Michx.
Fort Snelling, Minn. Aug. 28, 1889 (spec. retained.)
- 143 *Coreopsis verticillata*, L.
Bank of Miss. R. at Ft. Snelling, Minn. Aug. 11, 1889 (spec. to be returned.)
- 144 *Coreopsis palmata*, Nutt.
Fort Snelling, Minn. July 16, 1888 (spec. retained.)
- ✓ 145 *Aster umbellatus*, Mill. (N. L. B.)
Ft. Snelling, Minn. Sept. 27, 1890. (spec. retained.)
- 146 *Aster flammicoides*, T. & G. (N. L. B.)
Camp Douglas, Wis. Aug. 22, 1890. (spec. retained.)
- 147 *Ambrosia trifida*, L.
Aug. 4, 1888. Ft. Snelling, Minn. (specimens all retained - none sent.)
- 148 *Ambrosia artemisiifolia*, L.
Ft. Snelling, Minn. Aug. 16 and 29, 1889 (no specimens sent.)
- 149 *Silphium perfoliatum*, L. (Cup-Plant.)
Ft. Snelling, Minn. Aug. 9, 1890 (spec. retained, Aug. 12, 1889.)
- ✓ 150 *Lactuca Canadensis*, L. (N. L. B.)
Fort Snelling, Minn. Aug. 4, 1890 (spec. to be returned.)
- ✓ 151 *Lactuca integrifolia*, ~~Reich.~~ *scariola*, L. (N. L. B.)
Ft. Snelling, Minn. Aug. 4, 1890 (spec. to be returned.)
- 152 *Achillea millefolium*, L. (Common Yarrow or Milfoil.)
Ft. Snelling, Minn. July 19, 1888 (Ray's rose-color) (spec. retained.)
- 153 *Maruta Catula*, DC. Common May-weed.
Ft. Snelling, Minn. July 18, 1888; Camp Douglas, Wis. Aug. 16, 1890 (none sent.)
- ✓ 154 *Erigeron ramosus* (Walt.), B. S. P. = *E. stygius*. (N. L. B.)
Ft. Snelling, Minn. July 16, 1888; Camp Douglas, Wis. July 6 & 9, 1890 (spec. retained.)
- 155 *Erigeron annuus*, Pers. (N. L. B.)
Camp Douglas, Wis. July 6, 1890. (spec. to be returned.)
- 156 *Erigeron Canadense*, L. Horse-weed. Butter-weed.
Fort Snelling, Minn. Aug. 19, 1889 (spec. [Camp Douglas, Aug. 20, 1890] retained.)

- 157 *Horaceum Canadense*, Michx.
Ft. Snelling, Minn. Sept. 15, 1890 (toothed leaves; Camp Douglas, Wis. Aug. 22, 1890 (entire leaves); Aug. 23, 1890 (leaves toothed). (specimens retained.)
- 158 *Bidens frondosa*, L. (N. L. B.)
Ft. Snelling, Minn. Sept. 4, 1889. (spec. to be returned.)
This is the common "Pitchforks" along roadsides.
- ✓ 159 *Bidens ~~chrysanthemoides~~ Michx. helianthoides*, L. (N. L. B.)
Camp Douglas, Wis. Sept. 11, 1890 (spec. to be returned; but I have one from Ft. Snelling Sept. 4, 1889.)
- 160 *Coreopsis aristosa* Michx. (N. L. B.)
Minnesota Riv. at Ft. Snelling, Minn. Aug. 29, 1889 (spec. retained); also Camp Douglas, Wis. Sept. 9, 1890 (spec. retained.)
- 161 *Taraxacum officinale*, Weber. (Common Dandelion.)
Ft. Snelling, Minn. May 1890. (no spec. sent.)
- 162 *Helennium autumnale*, L. (Sneeze-weed.)
Ft. Snelling, Minn. Aug. 19, 1889. (specimen retained, and 27 ~~no spec. sent~~)
- 163 *Echinacea angustifolia*, DC. (Purple Cone-flower.)
Bismark, North Dakota, and Tappen, Kidder Co., N. D., July 22, 1889 (no spec. sent.)
- 164 *Rudbeckia hirta*, L. ("Black-eyed Susan" Cone-flower.)
Ft. Snelling, Minn. July 14, 1889.
- 165 *Rudbeckia laciniata*, L. (Cone-flower.)
Virginia Cascades, Yellowstone Park, Wyoming Terr. July 30, 1889;
Fort Snelling, Minn. Aug. 16, 1889. (no spec. sent.)
- 166 *Lepachys pinnata*, Torr. & Gray.
Ft. Snelling, Minn. Aug. 3, 1890. (spec. retained - Aug. 6, 1889.)
- 167 *Lepachys columnaris*, Torr. & Gray.
Dickinson, Stark Co., N. Dakota, July 22, 1889 (specimen retained from Windsor, Stutsman Co., N. D., July 22, 1889.)
- 168 *Lepachys columnaris*, Var. *pulcherrima*, Torr. & Gray
Dickinson, Stark Co., N. Dakota. July 22, 1889 (no spec. sent.)
- ✓ 169 *Cacalia suaveolens*, L. (N. L. B.)
Camp Douglas, Juneau Co., Wis. Aug. 20, 1890. (spec. retained.)

- 170 *Veronica fasciculata*, Michx. (Iron-weed.)
Fort Snelling, Minn. Aug. 13, 1889. (No spec. sent.)
- 171 *Tanacetum vulgare*, L. (Common Tansy.)
Fort Snelling, Minn. Aug. 14, 1889 (No spec. sent.)
- 172 *Senecio*
Upper Geyser Basin, Yellowstone National Park, Wyoming Terr.
July 28, 1889. Damp spruce woods. Rays yellow. (Spec. to be returned.)
- 173 *Bahia integrifolia*, Nutt.
Upper Geyser-Basin, Yellowstone Park, Wyoming. July 28, 1889
(Specimen to be returned.)
- 174 *Actinella*?
Fort Custer, Montana. July 24, 1889. (Spec. to be returned.)
- 175
Mammoth Hot Springs, ^{Yellowstone Park} Wyoming Terr. July 26, 1889. (Spec. to be returned.)
- 176 *Bigelovia*?
Big Horn River at Fort Custer, Montana. July 25, 1889. (Spec. to be returned.)
- 177 *Chrysopsis villosa*, Nutt. (Golden Aster.)
Ht. Snelling, Minn. July 6, 1889. (Spec. retained - Sept. 9, 1888.)
- 178 *Anemone cordifolia*, Hook.
From the summit of the divide between the Grand Cañon of the Yellowstone
and Norris Geyser Basin, Wyoming. Altitude, 8,475 feet.
July 30, 1889. (Spec. to be returned.)
- ✓ 179 *Lactuca pulchella*, DC. (N. Z. B.)
Windsor, Stutsman Co., N. Dakota. July 22, 1889. (Spec. retained.)
- 180 *Chaenactis Douglasii*, H. & A.
Upper Geyser Basin, Yellowstone National Park, Wyoming Terr.
July 28, 1889. (Spec. to be returned.)
- 181 *Gutierrezia euthamiae*, T. & G.
Big Horn River, Montana (at Ft. Custer). July 25, 1889
(Spec. to be returned.)

- 182 *Troximon cuspidatum*, Pursh.
Upper Geyser Basin, Yellowstone Park, Wyoming Terr. July 28, 1889.
(Spec. to be returned.) Color yellow.
- 183 *Troximon*
Mary's Lake, Yellowstone National Park, Wyoming. July 29, 1889
(Spec. to be returned.) Color dark reddish.
- 184 *Troximon*
Upper Geyser Basin, Yellowstone National Park, Wyoming. July 28, 1889.
(Spec. to be returned.) Flowers dark reddish.
- 185 *Troximon*
Near Mary's Lake, Yellowstone Park, Wyoming Terr. July 29, 1889.
(Spec. to be returned.) Color yellow.
- 186
Britton wrote nothing on label.
Ht. Snelling, Minn. July 30, 1890. 3° high, spreading, heads large
and yellow. (Spec. to be returned.)
- ✓ 187 *Erechtites hieracifolia*, Raf. (Fireweed.) (N. Z. B.)
Ht. Snelling, Minn. Aug. 4, 1890 (Spec. to be returned.)
- 188
Camp Douglas, Wis. July 12, 1890 (Spec. retained.)
- ✓ 189 "From the achene this ought to be *Lactuca Canadensis*," N. L. B. (Britton has written two
"??" after my field name: "*Lactuca Canadensis*" and "*Lactuca Canadensis*" - but
they were purple, & still show
flowers purple!!)
- ✓ 190 "*Lactuca Canadensis*," N. Z. B. fl. yellow.
Camp Douglas, Wis. July 12, 1890 (Spec. to be returned.) Flowers yellow.
- 191 *Kuhnia eupatorioides*, L. (Kuhnia.)
Ht. Snelling, Minn. Aug. 27, 1889 (Spec. retained.)
- 192 *Helianthus*
Camp Douglas, Wis. Aug. 20, 1890 (Specimens retained.)
- 193 *Helianthus*
Camp Douglas, Wis. Sept. 9, 1890. (Spec. retained.)
- 194 *Helianthus*
Camp Douglas, Wis. Sept. 9, 1890 (Spec. to be returned.)
- 195 *Helianthus*
Upper Geyser Basin, Yellowstone Park, Wyoming. July 28, 1889.
(Spec. to be returned.)

- 196 *Helianthus*
Camp Douglas, Wis. July 14, 1890. (Spec. to be returned.)
- 197 *Helianthus*
Camp Douglas, Wis. Sept. 13, 1890. (Spec. to be returned.)
- 198 *Helianthus*
Camp Douglas, Wis. Aug. 22, 1890. (Spec. to be returned.)
- 199 *Helianthus*
Camp Douglas, Wis. July 12, 1890 (Spec. to be returned.)
- 200 *Helianthus annuus*, L. (Common Sunflower.)
Ht. Snelling, Minn. Aug. 11, 1889; Windsor, Stutsman Co., N. Dakota,
July 22, 1889; Mendota, on the Little Missouri River, Billings
County, N. Dakota, July 22, 1889; Yappin, Kidder Co., N. Dakota,
July 22, 1889. (No specimens sent.)
- 201 *Helianthus rigidus*, Desf.
Ht. Snelling, Minn. Aug. 13 + 19, 1889. (Spec. retained.)
- 202 *Helianthus occidentalis*, Riddell.
Camp Douglas, Wis. Aug. 23, 1890. (Spec. retained.)
- 203 *Helianthus giganteus*, L.
Ht. Snelling, Minn. Aug. 11, 1889. (no spec. sent.)
- 204 *Helianthus doronicoides*, Lam.
Ht. Snelling, Minn. Aug. 29 + Sept. 1, 1888. (Spec. retained.)
- 205 *Helianthus hirsutus*, Raf.
Ht. Snelling, Minn. Aug. 19, 1890. (Spec. to be returned.)
- 206 *Helianthus strumosus*, L. *Helopsis scabra*, Donal. (N. G. B.)
Ht. Snelling, Minn. July 21, 1888. (Spec. retained.)
Genus, *Aster*. —
- 207 *Aster corymbosus*, Ait. "macrophyllus, Ait. Sent as *corymbosus*" (N. G. B.)
Camp Douglas, Wis. Sept. 13, 1890 (Spec. retained - Aug. 16 + Sept. 9.)
- 208 *Aster macrophyllus*, L. *cordifolius*, L. "sent as *A. macrophyllus*" (N. G. B.)
Ht. Snelling, Minn. Sept. 15, 1890 (Spec. retained.)
- 209 *Aster Novae-Angliae*, L.
Ht. Snelling, Minn. Aug. 19, 1889 (Spec. retained - Sept. 4, 1889, Sept. 29, 1890.)
- 210 *Aster sericeus*, Vent.
Camp Douglas, Wis. Sept. 4, 1890 (Spec. retained - July 12, Sept. 4, 1890,
and Ht. Snelling, Minn. Sept. 9, 1888.)
- 211 *Aster azureus*, Lindl.
Camp Douglas, Wis. Sept. 9, 1890; Ht. Snelling, Minn. Sept. 4 (Spec. retained.)
- 212 *Aster sagittifolius*, Willd.
Ht. Snelling, Minn. Aug. 28, 1889.

- 213 *Aster laevis*, L. (Pale Aster; Smooth Aster.)
Ht. Snelling, Minn. Sept. 17 (2 spec.), 1890; Sept. 9 (2 spec.), 1890.
(Spec. retained.)
- 214 *Aster multiflorus*, Ait.
Ht. Snelling, Minn. Sept. 26, 1890 (Spec. retained; also
specimen from Camp Douglas, Wis.)
- 215 *Aster ~~diffusus~~, Ait.?* *paniculatus*, Lam. (N. G. B.)
Ht. Snelling, Minn. Sept. 9, 1888, (Sept. 20, 1890, = *A. paniculatus* N. G. B.)
- 216 *Aster paniculatus*, Lam. Sept. 9, 1888" N. G. B.
Ht. Snelling, Minn. Sept. 21, 1890 (Spec. retained.)
- 217 *Aster tradescanti*, L.
Camp Douglas, Wis. Sept. 11, 1890 (Spec. retained.)
- 218 *Aster puniceus*, L.
Camp Douglas, Wis. Sept. 9, 1890 (Spec. retained.)
- 219 *Aster*
Camp Douglas, Wis. Sept. 13, 1890 (Spec. to be returned.)
- 220 *Aster (laevis?)*
Camp Douglas, Wis. Sept. 9, 1890 (Spec. to be returned.)
- 221 *Aster elegans*, Torr. & Gray. Britton wrote nothing on label.
Mammoth Hot Springs, Yellowstone Park, Wyoming Terr.
July 26, 1889 (Spec. to be returned.)
- 222
Minnesota River-bank, at Ht. Snelling, Minn. Sept. 4, 1889.
(Spec. to be returned.)
- 223
A dry plant, with very hairy leaves
of 1890. At the target.
Ht. Snelling, Minn. Autumn
- Leguminosae.* —
- 224 *Baptisia leucantha*, Torr. & Gr.
Camp Douglas, Wis. July 14 to 27, 1890 (No specimens sent.)
- 225 *Baptisia leucophora*, Nutt.
Camp Douglas, Wis. July 7 + 10, 1890 (fruit). (No specimens sent.)
- 226 *Lupinus perennis*, L. (Wild Lupine.)
Camp Douglas, Wis. July 5 (the last flowers seen), 1890. (No spec. sent.)
- 227 *Lupinus*
Mammoth Hot Springs, Yellowstone Park, Wyoming. July 26, 1889
(Spec. to be returned.)
- 228 *Trifolium pratense*, L. (Red Clover.)
Ht. Snelling, Minn. July 21, 1890 (No. Spec. sent.)

- 229 *Amorpha canescens*, Nutt. (Lead-Plant.)
 Ft. Snelling, Minn. July 30, 1888 (Spec. retained - July 31, 1888;
 Aug. 12, 1889; Windsor, Stutsman Co., N. Dakota, July 22, 1889.)
- 230 *Petalostemon violaceus*, Michx. (Violet Prairie Clover.)
 Ft. Snelling, Minn. Aug. 3, 1890 (Spec. retained - Camp Douglas, Wis., July
 30 and Aug. 3, 1890; Ft. Snelling, Minn., July 30, 1888, Aug. 19, 1889,
 July 30 + Aug. 3, 1890; Tappen, Kidder Co., N. Dakota, July 22, 1889.)
- 231 *Petalostemon candidus*, Michx.
 Camp Douglas, Wis., July 14, 1890; Ft. Snelling, Minn. July 30, 1888 (Spec. retained.)
- 232 *Astragalus caryocarpus*, Ker. (Ground Plum.)
 Ft. Snelling, Minn. Apr. 27, 1890 (Spec. retained.)
- 233 *Astragalus Canadensis*, L.
 Ft. Snelling, Minn. July 21, 1888; Aug. 2, 1890 (Spec. preserved.)
- 234 *Glycyrrhiza lepidota*, Nutt. (Wild Legumice.)
 Ft. Snelling, Minn. Sept. 6, 1889 (fruit) (Spec. retained.)
- 235 *Desmodium nudiflorum*, D. C.
 Camp Douglas, Wis. Aug. 17, 1890. (no spec. sent.)
- 236 *Desmodium acuminatum* D. C.
 Camp Douglas, Wis. Aug. July 14, 1890 (No spec. sent.)
- 237 *Desmodium Canadense*, D. C.
 Ft. Snelling, Minn. Aug. 9, 1890 (fl.); Aug. 29, 1889 (fr.) (Spec. retained.)
- 238 *Desmodium frutescens* Willd. (N. L. B.)
 Camp Douglas, Wis., Aug. 22, 1890 (fl.); Ft. Snelling, Minn., Sept 21,
 1890 (fr.) (Spec. retained.)
- 239 *Vicia Americana*, Muhl. (N. L. B.)
 Ft. Snelling, Minn. June 10, 1889 (Spec. to be returned.)
- 240 *Vicia Americana*, Muhl. var. *linearis*. (N. L. B.)
 Ft. Custer, Montana, July 24, 1889. (Spec. to be returned.)
- 241 *Lathyrus venosus*, Muhl. (flower)
 Ft. Snelling, Minn. June 16, 1888 (Spec. retained - June 10, 1889)
 Snelling, Minn.; July 14, 1890 (fruit), Camp Douglas, Wis.)
- 242 *Lathyrus palustris*, L. (N. L. B.)
 Ft. Snelling, Minn. June 16, 1888; Camp Douglas, Wis., Aug. 16, 1890.
 (both spec. to be returned.)
- 243 *Amphiscarpaea monorica*, Nutt.
 Ft. Snelling, Minn. Aug. 19, 1889.
- 244
 Ft. Snelling, Minn. July 20, 1890 (Spec. retained - July 14, 1889.)
- 242a *Lathyrus* - prob. form of *L. palustris*. (N. L. B.)
 Camp Douglas, Wis. Aug. 16, 1890.

- 244 *Psoralea tenuiflora* (N. L. B.)
- 244 *Psoralea argophylla*. July 22, 1890. (N. L. B.)
 Fort Custer, Montana, July 25, 1889 (Spec. retained - Big Timber,
 Montana. July 26, 1889.)
- 245 *Leprosia Virginiana* (L.) Pers. (N. L. B.)
 Camp Douglas, Wis. July 7, 1890 (Spec. retained.)
- 246 *Phaseolus helvolus*, L. (N. L. B.)
 Ft. Snelling, Minn. Sept. 17, 1890 (Spec. retained.)
- 247 *Apocynum (L.) Britt.* (N. L. B.)
 Ft. Snelling, Minn. Sept. 30, 1890 (Spec. to be returned.)
- 248 *Apocynum tuberosa* ought to be *Apocynum apios* L. (N. L. B.)
 Camp Douglas, Wis. Aug. 20, 1890 (Spec. retained.)
- 249 *Lolium reneians*? (N. L. B.)
 Fort Meade, S. Dakota. Summer of 1889.
- 250 *Polygala sanguinea*, L. (N. L. B.)
 Camp Douglas, Wis. July 12 and Aug. 20, 1890 (Spec. retained.)
- 251 *Polygala polygama*, Walt. (N. L. B.)
 Camp Douglas, Wis. July 6 + 12, 1890 (Spec. retained.)
- 252 *Polygonum articulatum* L. (N. L. B.)
 Camp Douglas, Wis. Aug. 17, 1890 (Spec. retained.)
- 253 *Lappa officinalis*, Allioni, var. *major* (Common Burdock.)
 Ft. Snelling, Minn. Aug. 1, 1888 (no spec. sent.)
- Ranunculaceae*. -
- 254 *Anemone patens*, L. var. *Nuttalliana*, Gray (Pasque-flower.)
 Ft. Snelling, Minn. March 30, 1889. (Spec. retained.)
- 255 *Anemone cylindrica*, Gray. (Long-fruited Anemone.)
 Camp Douglas, Wis., Sept. 13, 1890 (fruit); Ft. Snelling, Minnesota,
 June, 1890 (flower). (No spec. sent.)
- 256 *Anemone Pennsylvanica*, L.
 Ft. Snelling, Minn. June 14, 1888 (fl.); Camp Douglas, Wisconsin,
 July 14, 1890 (fl. + fr.) (No spec. sent.)
- 257 *Anemone nemorosa*, L. (Wind-flower. Wood Anemone.)
 Ft. Snelling, Minn. June 7, 1890 (Spec. retained - May 10, 1889.)
- 258 *Anemonella thalictroides*, Spach. (Rue - Anemone.)
 Mendota, Minn., Apr. 18, 1889 (fl.); July 7, 1888 (fr.) (Spec. retained.)
 Flowers a deep, beautiful rose-purple, instead of white.
- 259 *Thalictrum dioicum*, L. (Early Meadow-Rue.)
 Ft. Snelling, Minn. May 12, 1889 (fl.); Camp Douglas, Wis., July 12, 1890 (plant).
 (No specimens sent.)

- 260 *Thalictrum polygamum*, Muhl. (Tall Meadow-Rue.)
Ht. Snelling, Minn. July 2, 1890 (fl.); July 20, 1888 + Aug. 3, 1890
(fruit). (Spec. retained.)
- 261 *Oenothera alpina*, L. var. — (N. L. B.)
Mammoth Hot Springs, Yellowstone Park, July 26, 1889.
(Specimen to be returned.)
- 262 *Isopyrum bitemata*, Torr. & Gray.
Ht. Snelling, Minn. May 6 + June 7, 1889 + 1890 (fl.)
(Spec. retained - May 16, 1889.)
- 263 *Hepatica acutiloba*, D. C.
Ht. Snelling, Minn. April 23, 1889; Apr. 18, 1890 (No spec. sent.)
Flowers rose tinted instead of bluish or violet tinted. Very fragrant.
- 264 *Ranunculus rhomboides*. (N. L. B.)
Ht. Snelling, Minn. Apr. 22, 1890 (the first seen that year). (Spec. to be returned.)
- 265 *Ranunculus*
Ht. Snelling, Minn. May 20, 1890. (Spec. retained.)
- 266 *Ranunculus*
Camp Douglas, Wis. July, 1890 (Spec. retained - Camp Douglas, Wis.,
July 14, 1890; Ht. Snelling, Minn., July 30, 1890.)
- 267 *Caltha palustris*, L. (Marsh Marigold.)
Mille Lacs, Minnesota. June 22, 1889 (Specimen was sent.)
- 268 *Aquilegia canadensis*, L. (Wild Columbine.)
Ht. Snelling, Minn. June 14, 1890 (No spec. sent.)
- 269 *Aquilegia flavescens*, Watson. (N. L. B.)
Upper Geyser Basin, Yellowstone Park, Wyoming Terr. July
28, 1889. (Spec. to be returned.)
- 270 *Delphinium exaltatum*, Ait. (Tall Larkspur.) (N. L. B.)
Ht. Snelling, Minn. July 12, 1889.
- 271 *Delphinium azureum*, Michx.
Ht. Snelling, Minn. June 23, 1888 (Spec. retained - July 3 + 4, 1888.)
- 272 *Aconitum columbianum*, Nutt. (Wolfbane. Monkshood.)
Pollinaris Spring, Yellowstone National Park, Wyoming Terr..
July 27, 1889 (No spec. sent.)
- 273 *Caustophyllum thalictroides*, Michx. (Blue Cohosh. Pappoose-root.)
Ht. Snelling, Minn. May 5, 1889 (fl.); Sept. 20, 1890 (fruit). (No spec. sent.)
- 274 *Sanguinaria canadensis*, Dill. (Blood-root.)
Ht. Snelling, Minn. June 10, 1889 (leaves) (No spec. sent.)
- 275 *Nymphaea odorata*, Ait. (Sweet-scented Water-Lily.)
Ht. Snelling, Minn. July 10 + 24, 1888 (No spec. sent.)

- 276 *Nuphar advena*, Ait. f. var. *variegatum*, Engelm.
Ht. Snelling, Minn. July 24, 1888.
- 277 *Sarracenia purpurea*, L. (Side-saddle Fl. Pitcher-Plant. Houttean's Cup)
Camp Douglas, Wis.; and ^{Windsor, Stutaman Co.,} Ht. Snelling, Minn. June 22, 1889 (No spec. sent.)
- 278 *Corydalis aurea*, Willd. (Golden Corydalis.)
Ht. Snelling, Minn. May 30, 1890 (Spec. retained.)
- 279 *Dicentra cucullaria*, D. C. (Dutchman's Breches.)
Ht. Snelling, Minn., May 30, 1890. (No spec. sent. Spec. retained.)
- 280 *Piedmontia rigida*. (W. L. B.) (Fam. Umbelliferae.)
Ht. Snelling, Minn. Aug. 19, 1889. (Spec. to be returned.)
- 281
Ht. Snelling, Minn. July 10, 1889. (Spec. to be returned.)
- 282
Ht. Snelling, Minn. July 10, 1889 (Spec. to be returned.)
- 283
Ht. Snelling, Minn. ^{Fam., Cruciferae.} Aug. 28, 1889. (Spec. retained.)
- 284
Ht. Snelling, Minn. Aug. 1, 1888. (Spec. retained.)
- 285
Camp Douglas, Wis. July 14, 1890. (Spec. retained.)
- 286
Ht. Snelling, Minn. June 21, 1890 (Spec. retained.)
- 287
Camp Douglas, Wis. July 16, 1890 (Spec. retained.)
- 288
Ht. Snelling, Minn. May, 1890 (Spec. retained.)
- 289
Ht. Snelling, Minn. Aug. 11, 1889. (Spec. retained.)
- 290
Ht. Snelling, Minn. Aug. 4, 1890 (Spec. retained.)
- 291
Camp Douglas, Wis. July 28, 1890 (Spec. retained.)
- 292 *Polanisia graveolus*, Raf. (Polanisia.)
Ht. Snelling, Minn. Aug. 14, 1889. (No spec. sent.)
- 293 *Clione integrifolia* (N. L. B.)
Windsor, Stutaman Co., S. Dakota, July 22, 1889 (Spec. to be
returned.)

294

Mammoth Hot Springs, Yellowstone Park, Wyoming Terr.,
July 26, 1889. (Spec. to be returned.)

295 *Viola sagittata* (N. L. B.)

Camp Douglas, Wis. Sept. 2, 1890 (fruit). (duplicate spec. retained.)

296 *Viola pedata*, L., var. *bicolor*, Pursh.

Camp Douglas, Wis. Sept. 8, 1890. (No spec. sent.)

297 *Viola pedata*, L. (Bird-foot Violet.)

Camp Douglas, Wis. Aug. 22, 1890 (spec. retained.)

298 *Viola pedata*, L. (Bird-foot Violet.)

Fort Snelling, Minn. May 12, 1889 (spec. retained.)

299 *Viola*

Camp Douglas, Wis. July 9, 1890 (spec. to be returned.)

300 *Viola palmata*, L. (Common Blue Violet.), var.

encullata, Gray. ^{near *longe*, N.Y. Sept. 19, 1889} Fort Snelling, Minn. ^{May 12, 1889} June 1, 1890 (none sent)

301 *Viola pubescens*, Ait. (Downy Yellow Violet.)

Fort Snelling, Minn. May 12, 1889. (none sent.)

302 *Viola Canadensis*, L. (Canada Violet.)

Fort Snelling, Minn. June 10, 1889 (spec. retained - June 7, 1890, etc.)

303 *Saponaria officinalis*, L. (Soapwort. Bouncing Bet.)

Fort Snelling, Minn. July 18, 1889, Aug. 4, 1890 (none sent.)

304 *Saponaria vaccaria*. (N. L. B.)

Railroad track at Fort Snelling, Minn., July 12, 1889.

(Specimen to be returned.)

305 *Lychnis lituago*, Lam. (Corn Cockle) (N. L. B.)

Camp Douglas, Wis. July 16, 1890 (spec. retained)

306

Camp Douglas, Wis. Sept. 1, 1890 (Spec. to be returned.)

307 *Silene stellata*, Ait. (Starry Campion.)

Fort Snelling, Minn. July 14 + 17, 1889 (none sent.)

308 *Mollugo verticillata*, L. (Carpet-wood.) (N. L. B.)

Camp Douglas, Wis. July 27, 1890 (spec. retained.)

309 *Portulaca oleracea*, L. (Common Purslane.)

Camp Douglas, Wis. July 27, 1890 (none sent.)

310 *Malva eximia*, L. (N. L. B.) Curled Mallow. Mallow

Fort Snelling, Minn. Sept. 29, 1890 (spec. retained.)

311 *Malvastrum coccineum*, Gray

Fort. Custer, Montana. July 24, 1889 (none sent.)

312 *Sphaeralcea rivularis*, Torr.

Mammoth Hot Springs, Yellowstone National Park, Wyoming,
July 26, 1889.

313 *Abutilon Avicennae*, Gaertn. (Indian Mallow. Velvet-Leaf.)

Fort Snelling, Minn. Sept. 8, 1889. (none sent.)

314 *Malva rotundifolia*, L. (Common Mallow.)

Fort Snelling, Minn. Aug. 19, 1889. (none sent.)

315 *Lilia Americana*, L. (Bass-wood.)

Fort Snelling, Minn. Aug. 4, 1888 (none sent.)

316 *Linum Lewisii*. (N. L. B.)

Fort. Custer, Montana. July 24, 1889 (spec. to be returned.)

317 *Linum usitatissimum*. (N. L. B.)

Camp Douglas, Wis. Aug. 20, 1890. (spec. to be returned.)

318 *Houstonia purpurea*, L. var. *longifolia*, A. Gray. (N. L. B.)

Camp Douglas, Wis. July 7, 1890 (spec. to be returned.)

319 *Houstonia purpurea*, L. var. *longifolia*, A. Gray. (N. L. B.)

Camp Douglas, Wis. July 12, 1890 (spec. to be returned.)

320 *Houstonia purpurea*, L. var. *longifolia*. (N. L. B.)

Camp Douglas, Wis. Aug. 20, 1890. (Spec. to be returned.)

321 *Oxalis violacea*, L. (Violet Wood-Sorrel.)

Fort Snelling, Minn. 1890. (none sent.)

322 *Oxalis corniculata*, var. *stricta*, Sav.

Fort Snelling, Minn. Aug. 14, 1890 (fr.) (spec. retained; also
a spec. in fl., Camp Douglas, Wis., Aug. 20, 1890.)

323 *Geranium Richardsonii*, H. + M. (Richardson's Cranesbill.)

Upper Geyser Basin, Yellowstone National Park, Wyoming

Terr., July 28, 1889. (Spec. not sent.)

324 *Geranium maculatum*, L. (Wild Cranesbill.)

Fort Snelling, Minn., June 14, 1888. (not sent.)

325 *Impatiens pallida*, Nutt. (Pale Touch-me-not.)

Fort Snelling, Minn. Sept. 15, 1890. (spec. retained.)

326 *Impatiens fulva*, Nutt. (Spotted Touch-me-not.)

Camp Douglas, Wis., Aug. 23, 1890. (spec. retained.)

327 *Acer rubrum*. (N. L. B.)

Camp Douglas, Wis. July 11 (branch of green leaves) and Sept. 11 (branch
of colored leaves), 1890. (Specimens to be returned.)

328 *Acer grandidentata*.

Fossil Creek, Arizona. A single mutilated leaf. (to be returned.)

This is not in Britton's list of my Arizona collection.

- 329 *Negundo aceroides*, Moench. (Ash-leaved Maple. Box-Elder.)
Ht. Snelling, Minn. March, 1889 (fl.); May 30, 1890 (fr.) (not sent.)
- 330 *Xanthoxylum Americanum*, Miller. (Prickly Ash.)
Ht. Snelling, Minn., Aug. 4, 1888. (not sent.)
- 331 *Rhus venenata*, DC. (Poison Sumach or Dogwood.)
Camp Douglas, Wis., Aug. 17, 1890 (none sent.)
- 332 *Rhus typhina*, L. (Staghorn Sumach.)
Ht. Snelling, Minn. (Aug. 6, 1890 fruit) (Spec. retained.)
- 333 *Rhus glabra*, L. (Smooth Sumach.)
Camp Douglas, Wis., July 14, 1890 (not sent.)
- 334 *Rhus copallina*, L. (Dwarf Sumach.)
Camp Douglas, Juneau Co., Wis. Aug. 23, 1890 (not sent.)
- 335 *Fragaria*
Camp Douglas, Wis. Aug. 1, 1890. (Spec. to be returned.)
- 336 *Spiraea tomentosa*, L. (Heardhack. Steeple-Bush.)
Camp Douglas, Wis. Aug. 23, 1890. (
- 337 *Spiraea salicifolia*, L. (Common. Meadow-Sweet.)
Camp Douglas, Wis. July 14, 1890.
- 338 *Prunus Americana*, Marshall (Wild Yellow or Red Plum.)
Ht. Snelling, Minn., Aug. 4, 1888 (not sent.) fruit.
- 339 *Prunus Pennsylvanica*, L. (Wild Red Cherry.)
Camp Douglas, Wis. July 16, 1890 (fruit). (not sent.)
- 340 *Prunus Virginiana*, L. (Choke-Cherry.)
Ht. Snelling, Minn., August 4, 1889 (fr.) (not sent.)
- 341 *Rubus Canadensis*. (N. L. B.)
Ht. Snelling, Minn. Aug. 3, 1890. (Spec. to be returned.)
- 342 *Rubus villosus*, L. (N. L. B.)
Camp Douglas, Wis., July 7, 1890 (Spec. to be returned.)
- 343 *Rubus hispidus*. (N. L. B.)
Camp Douglas, Wis., July 11, 1890 (Spec. to be returned.)
- 344 *Geum macrophyllum*, Willd. (N. L. B.)
Ht. Snelling, Minn., Aug. 24, 1889 (Spec. to be returned.)
- 345 *Geum strictum*, Ait. (N. L. B.)
Camp Douglas, Wis., July 16, 1890. (Spec. to be returned.)
- 346 *Geum album*, Gmel. fl. white. (N. L. B.)
Fort Snelling, Minn., Sept. 15, 1890. (Spec. to be returned.)
- 347 *Geum album*, Gmel. fl. white. (N. L. B.)
Ht. Snelling, Minn. Aug. 4, 1890. (Spec. to be returned.)
- 348 *Geum triflorum*, Pursh.
Ht. Snelling, Minn., May 22 & June 10 - 1889 (not sent.)

- 349 *Potentilla fruticosa*, Linn.
Mammoth Hot Springs, Yellowstone National Park, Wyoming
Terr., July 26, 1889. (not sent.)
- 350 *Potentilla arguta*, Pursh.
Ht. Snelling, Minn., July 13, 1889
- 351 *Potentilla palustris*, Cesp. (Marsh Five-Finger.)
Ht. Snelling, Minn., July 14, 1890. (Spec. retained.)
- 352 *Potentilla norvegica* (N. L. B.)
Camp Douglas, Wis., Aug. 20, 1890. (Spec. to be returned.)
- 353 *Potentilla Norvegica*. (N. L. B.)
Camp Douglas, Wis., July 12, 1890. (Spec. to be returned.)
- 354 *Potentilla Canadensis*, L. (Common Cinquefoil or Five-Finger.)
Camp Douglas, Wis. July 12, 1890. (not sent.)
- 355 *Potentilla tridentata*, Ait. (Three-toothed Cinquefoil.)
Camp Douglas, Wisconsin, July 12, 1890 (Spec. retained.)
- 356 *Rosa* "?" N. L. B.
Grand Cañon of the Yellowstone, Wyoming Terr., July 30, 1889
(Spec. to be returned.)
- 357 *Rosa Carolina*, L. (N. L. B.)
Camp Douglas, Wis. July 12, 1890. (Spec. to be returned.)
- 358 *Rosa Carolina*, L. (N. L. B.)
Camp Douglas, Wis. July 14, 1890 (Spec. to be returned.)
- 359 *Rosa blanda*, Ait. (N. L. B.)
Ht. Snelling, Minn. June 14, 1890. (Spec. retained.)
- 360 *Rosa blanda*, Ait. *Woodsii*? (N. L. B.)
Ht. Snelling, Minn. June 20, 1888 (Spec. retained.)
- 361 *Rosa Ardensawa*, Porter? (N. L. B.)
Ht. Snelling, Minn. July 10, 1889. (Spec. to be returned.)
- 362 *Crataegus Amalachier Canadensis* (L.) P. & G. (N. L. B.)
Camp Douglas, Wis., July 14, 1890 (fr.) (Spec. to be returned.)
- 363 *Crataegus Coccinea*, L. (N. L. B.)
Camp Douglas, Wis. July 14, 1890.
Ht. Snelling, Minn., Sept. 17, 1890 (fr.) (Spec. to be returned.)
- 364 *Crataegus subvillosa* Schrad. (N. L. B.)
Ht. Snelling, Minn., May 10, 1889 (fl.) (Spec. retained.)
- 365 *Spiraea opulifolia*, L. (N. L. B.)
Ht. Snelling, Minn. June 20, 1888 (fl.) (Spec. retained.)
- 366 *Talinum teretifolium*, Pursh. (N. L. B.)
Camp Douglas, Wis., Aug. 15, 1890 (Spec. to be returned.)

- 367 *Sedum Telephium*, L. (Garden Arbutus or Live-for-ever.)
Camp Douglas, Juneau Co., Wis., Aug. 17, 1890. (Spec. retained.)
- ✓ 368 *Euphorbia maculata*? "N. L. B."
Camp Douglas, Juneau Co., Wis., Aug. 23, 1890. (Spec. to be returned.)
- 369 *Heuchera hispida*, Pursh. (Prairie Alum-root.)
Fort Snelling, Minn., June 23, 1888. (poor spec. sent; none retained.)
- 370 *Mitella diphylla*, L. (Mitre-wort. Bishop's-Cap.)
Ft. Snelling, Minn., June 15, 1888 (not sent.)
- 371 *Sedum stenopetalum* Pursh. Near Mary's Lake,
Yellowstone National Park, Wyoming, Alt. 8000 feet.,
July 29, 1889. (Spec. retained.) The above specimen
was retained, and a spec. from Upper Super Basin substituted.
- 372 *Parnassia Caroliniana*, Michx. (Fls. of Parnassus.)
Ft. Snelling, Minn., Aug. 14, 1888 (Spec. retained)
- 373 *Parnassia*
Ft. Snelling, Minn., Aug. 12, 1889 (Spec. retained.)
- 374 *Parnassia parviflora* DC. (N. L. B.)
Upper Super Basin, Yellowstone Park, Wyoming Territory,
July 28, 1889. (Spec. retained.)
- ✓ 375 *Ribes oxycanthoides*, L. (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (ripe fruit) (Spec. retained.)
- ✓ 376 *Ribes floridum*, L. Hb. (N. L. B.)
Camp Douglas, Wis., Aug. 23, 1890, ^{ripe fruit.} (Spec. retained.)
- ✓ 377 *Ribes floridum*, L. Hb. (N. L. B.)
Ft. Snelling, Minn., Aug. 6, 1890 (Spec. retained.)
- ✓ 378 *Ribes*
Mammoth Hot Springs, Yellowstone National Park,
Wyoming, July 26, 1889 (Spec. to be returned.)
- ✓ 379 *Ribes floridum*, L. Hb. (N. L. B.)
Ft. Snelling, Minn., June 14, 1890 (Spec. retained.)
- ✓ 380 *Ribes aureum*, Pursh. (N. L. B.) Missouri Currant
Ft. Snelling, Minn., May, 1890 (Spec. retained.)
- ✓ 381 *Ribes oxycanthoides*, L. (N. L. B.)
Ft. Snelling, Minn., May 6, 1889. (Spec. to be returned.)
- 382 *Ribes oxycanthoides*, L. ? (N. L. B.)
Ft. Snelling, Minn., Sept. 28, 1890 (Spec. to be returned.)
- 383 *Laura coccinea*, Spach.
Ft. Custer, Montana, July 24, 1889; Dawson, Kidder County,
N. Dakota, July 22, 1889. (none sent.)

- ✓ 384 *Oenothera albicaulis* (N. L. B.)
Tappen, Kidder Co., ^{N. Dakota} July 22, 1889 (Spec. to be returned.)
- ✓ 385 *Oenothera albicaulis* (N. L. B.)
Tappen, Kidder Co., N. Dakota, July 22, 1889 (Spec. to be returned.)
- 386 *Epilobium (spicatum?)*
Mammoth Hot Springs, Yellowstone National Park, Wyoming,
July 26, 1889 (Spec. to be returned.)
- ✓ 387 *Epilobium spicatum*. (N. L. B.)
Camp Douglas, Wis., Sept. 13, 1890. (Spec. to be returned.)
- 388 *Epilobium*
Camp Douglas, Wis., July 25, 1890. (Spec. to be returned.)
- ✓ 389 *Epilobium spicatum*. (N. L. B.)
Camp Douglas, Wis., July 12, 1890. (Spec. to be returned.)
- 390 *Oenothera biennis*, L.
Ft. Snelling, Minn., Aug. 9, 1890; Camp Douglas, Wis.,
July 12, 1890 (Spec. retained.)
- 391 *Lycopers angulatus*, L. (One-seeded Pur-cucumber.)
Oct. 10, 1890, Ft. Snelling, Minn., ^{Aug. 5, 1890. (Spec. retained.)}
- 392 *Echinocystis lobata*, Torr. & Gray. (Wild Balsam-apple.)
Ft. Snelling, Minn., Aug. 3, 1890. (Spec. retained.)
- ✓ 393 *Hydrophyllum virginicum* (N. L. B.)
Ft. Snelling, Minn., June 10, 1890 (Spec. retained.)
- ✓ 394 *Aralia hispida* Vent. (N. L. B.)
Camp Douglas, Wis., July 11, 1890 (Spec. retained - July 16, 1890.)
- ✓ 395 *Sambuca Canadensis*, L. (N. L. B.)
Camp Douglas, Wis., July 16, 1890 (Spec. to be returned.)
- 396
Camp Douglas, Wis., July 16, 1890. (Spec. to be returned.)
- ✓ 397 *Tiedmannia rigida* Coult. & Rose (Cowbane.) (N. L. B.)
Camp Douglas, Wis., Aug. 22, 1890 (Spec. retained.)
- ✓ 398 *Cicuta maculata*, L. (N. L. B.)
Camp Douglas, Wis., July 12, 1890. (Spec. to be returned.)
- 399 *Geracleum lanatum*, Mx. (Cow Parsnip.)
Upper Super Basin, Yellowstone National Park, Wyoming
Terr., July 28, 1889. (not sent.)
- 400
Ft. Snelling, Minn., May 13, 1890. (Spec. to be returned.)
- ✓ 401 *Oenothera* sp. (N. L. B.)
Ft. Snelling, Minn., 1890 (the day I carried Louis
down to see the catbird's nest. (Spec. to be returned.)

Gizia cordata Koch N. L. B.

- ✓402 *Thasium trifoliatum*, var. *apertum*, Gray.
(Meadow-Parasit. Golden Alexanders.)
Fort Snelling, Minn., May 13, 1890. (Spec. retained.)
- 403 *Symphoricarpos racemosus*, Michx. (Snowberry.)
Ht. Snelling, Minn., July 21, 1890. (Spec. retained.)
- ✓404 *Symphoricarpos occidentalis*. (N. L. B.)
Ht. Snelling, Minnesota, Aug. 4, 1889 (Spec. to be returned.)
- ✓405 *Symphoricarpos occidentalis* (N. L. B.)
Ht. Snelling, Minnesota, Aug. 7, 1890 (Spec. to be returned.)
- ✓406 *Aralia 5-folia*. (N. L. B.)
Ht. Snelling, Minn., Sept. 20, 1890 (fr.). (Spec. retained.)
- ✓407 *Aralia racemosa*. N. L. B.
Camp Douglas, Wis., July 14, 1890 (Spec. to be returned.)
- 408 *Lonicera glauca*? N. L. B.
Camp Douglas, Wis., July 12, 1890 (Spec. to be returned.)
- ✓409 *Hypericum virginicum* (N. L. B.)
Camp Douglas, Wis., Sept. 13, 1890 (Spec. retained.)
- ✓410 *Dierilla trifida* (N. L. B.)
Camp Douglas, Wis., July 14, 1890. (Spec. retained.)
- ✓411 *Actaea rubra*. Fort Snelling Minn., May 12, 1889. Coll. Mearns. "N. L. B."
Ht. Snelling, Minn., May 12, 1889 (Spec. retained.)
- 412 *Sambucus racemosa*, L. (Red-barked Elder.)
Ht. Snelling, Minn., 1890. (Spec. retained.)
- 413 *Sambucus Canadensis*, L. (Common Elder.)
Ht. Snelling, Minn., July 20, 1888 (fl.); August 7, 1890
(fr. unripe); Camp Douglas, Wis., Aug. 23, 1890 (fr.) (Not sent.)
- 414 *Cornus Canadensis*, L. (Dwarf Cornel. Bunch-berry.)
Camp Douglas, Wis., July 11, 1890 (Spec. retained.)
- ✓415 *Cornus candidissima*, Marsh. (N. L. B.)
Camp Douglas, Wis., July 9, 1890 (fr.) (Spec. retained.)
- 416 *Cornus circinata*, L. (Round-leaved Cornel or Dogwood.)
Ht. Snelling, Minn., June 20, 1888 (fl.) (Not sent.)
- ✓417 *Cornus stolonifera* (N. L. B.)
Camp Douglas, Wis., Sept. 1, 1890 (Spec. to be returned.)
- ✓418 *Cornus stolonifera* (N. L. B.)
Ht. Snelling, Minn., July 10, 1889 (Spec. to be returned.)
- ✓419 *Cornus candidissima* (N. L. B.)
Ht. Snelling, Minn., June, 1890. (Spec. to be returned.)
- ✓420 *Cornus candidissima* (N. L. B.)
Ht. Snelling, Minn., Sept. 20, 1890 (fr.) (Spec. to be returned.)

- 421 *Spiraea opulifolia*, L. = *Physocarpa opulifolia*. (N. L. B.)
Camp Douglas, Wis., July 9, 1890 (Spec. to be returned.)
- 422 *Viburnum Opulus*, L. (Cranberry-tree.)
Ht. Snelling, Minn., June 11, 1890; Mora, Kenabe Co.,
Minn., June 22, 1889 (fl.). (Not sent.)
- 423 *Viburnum Lentago*, L. (Sweet Viburnum. Sheep-Berry.)
Ht. Snelling, Minn., June 7, 1890 (fl. Spec. retained.)
- 424 *Mitchella repens*, L. (Partridge-berry.)
Camp Douglas, Wis., July 14, 1890 (plant) (Not sent.)
- 425 *Cephalanthus occidentalis*, L. (Button-bush.)
Camp Douglas, Wis., Aug. 16, 1890 (Spec. retained.)
- 426 *Valeriana edulis*, Nutt.
Ht. Snelling, Minn., May 30, 1889 (not sent.)
- 427 *Salix boreale*, L. (Northern Bedstraw.)
Ht. Snelling, Minn., June 28, 1888 (Spec. retained.)
Camp Douglas, Wis., July 12, 1890 (Spec. retained.)
- ✓428 *Salix asprellum*. (N. L. B.)
Camp Douglas, Wis., July 16, 1890 (Spec. to be returned.)
- 429 *Lobelia syphilitica*, L. (Great Lobelia.)
Ht. Snelling, Minnesota, Aug. 30, 1888. (Spec. retained.)
- ✓430 *Lobelia inflata*. (N. L. B.)
Camp Douglas, Wis., Sept. 7, 1890 (Spec. to be returned.)
- 431 *Lobelia cardinalis*, L. (Cardinal-flower.)
Camp Douglas, Wis., Aug. 16, 1890 (Spec. retained.)
- ✓432 *Scutellaria parvula*, Michx. (N. L. B.)
Camp Douglas, Wis., July 16, 1890 (Spec. retained.)
- 433 *Panpanula rotundifolia*, L. (Harebell.)
Ht. Snelling, Minn., July 21, 1888; Camp Douglas, Wis.,
July 7, 1890; Grand Canon of Yellowstone, Wyo. Terr., July 30, 1889.
(Not sent.) (Spec. retained.)
- 434 *Panpanula Americana*, L. (Tall Bellflower.)
Ht. Snelling, Minn., July 21, 1888 (Spec. retained.)
- 435 *Panpanula aparinoides*. (N. L. B.)
Camp Douglas, Wis., July 12, 1890. (Spec. to be returned.)
- 436 *Pedum latifolium*, Ait. (Labrador Tea.)
Mora, Kenabe Co., Minn., June 22, 1889. (Not sent.)
- 437 *Pyrrola chlorantha*, Swartz.
Grand Canon of Yellowstone River, Wyoming Terr., July
29, 1889. (at "Inspiration Point"). (Not sent.)

- 438 *Vaccinium Myrtillus*, L., var. *microphyllum*, Hook.
Upper Teton Basin, Yellowstone Park, Wyoming Terr.,
July 28, 1889. (Nat sent.)
- 439 *Piprola elliptica*, Nutt. (Shin-leaf.)
From "Camp Fremont", near Osseo, Minn., Sept. 21, 1889.
(Spec. retained.)
- 440 *Piprola elliptica*, Nutt.
Camp Douglas, Juneau Co., Wis., July 7, 1890 (Spec. retained.)
- 441 *Piprola rotundifolia*, L.
Camp Douglas, Juneau Co., Wis., July 16, 1890 (Spec. retained.)
- 442 *Monotropa uniflora*, L. (Indian Pipe. Corpse-Plant.)
Camp Douglas, Wis., Aug. 16, 1890. (Spec. retained.)
Specimens taken July 11, 14, 1890, also retained.
- 443 *Ledum latifolium*, Ait. (Labrador Sea.)
Camp Douglas, Wis., July 11, 1890 (fr.) (Spec. retained.)
- 444 *Chimaphila umbellata*, Nutt. (Prince's Pine. Pipe-sisewwa.)
Camp Douglas, Wis., July 12, 1890 (Spec. retained.)
- 445 *Kalmia Andromeda polifolia*, L. (N. Z. B.)
Camp Douglas, Wis., July 25, 1890. (Spec. retained.)
- 446 *Vaccinium* ~~Cassandra~~ *calyculata* (N. Z. B.)
Camp Douglas, Wis., July 25, 1890. (Spec. retained.)
- 447 *Gaylussacia resinosa*, Torr. & Gray. (Huckleberry.)
Camp Douglas, Wis., July 11, 1890. (Spec. retained.)
- 448 *Gaultheria procumbens*, L. (Creeping Wintergreen.)
Camp Douglas, Juneau Co., Wis., July 14, 1890 (Not sent.)
- 449 *Ilex verticillata*. (N. Z. B.)
Camp Douglas, Wis., Sept. 13, 1890 (Spec. to be returned.)
- 450 *Ilex verticillata*. (N. Z. B.)
Camp Douglas, Wis., Aug. 29, 1890 (Spec. retained.)
- 451 *Corylus nigra* (Marsh) Sarg. (N. Z. B.)
Camp Douglas, Wis. July 25, 1890 (Spec. retained - July 11.)
- 452
Camp Douglas, Wis. July 16, 1890 (Spec. retained - July 25.)
- 453 *Prunus pumila*, L. (Dwarf Cherry. Sand L.) (N. Z. B.)
Camp Douglas, Wis., July 7, 1890. (Spec. retained.)
- 454 *Lisimachia quadrifolia*, L.
Camp Douglas, Juneau Co., Wis. July 11, 1890 (Spec. retained.)
- 455 *Lisimachia stricta* (N. Z. B.)
Camp Douglas, Wis. July 12, 1890 (Spec. to be returned.)

- 456 *Steironema lanceolatum* (N. Z. B.)
Camp Douglas, Wis.,
- 457 *Steironema ciliatum* Raf.
Ht. Snelling, Minn., July 16, 1888 (Not sent.)
- 458 *Fraxinus* Leaves only. Britton left the label blank.
Ht. Snelling, Minn. Sept. 17, 1890 (Spec. to be returned.)
- 459 *Trinitatis Americana*, Pursh (Star-flower.)
Camp Douglas, Wis., July 11, 1890 (Spec. retained.)
- 460 *Asclepias* 1
Ht. Snelling, Minn., June 15, 1880 (Poor spec. sent; none kept.)
- 461 *Asclepias*
Ht. Puster, Montana, July 25, 1889 (Spec. to be returned.)
- 462 *Asclepias cornuti*, Decaisne. (Common Milkweed or Silkweed.)
Ht. Snelling, Minn., July 12, 1888 (Spec. retained.)
- 463 *Asclepias tuberosa* L. (Butterfly-weed. Pleurisy-root.)
Ht. Snelling, July 20, 1888. (Spec. retained - July 10 + 12, 1888.)
Camp Douglas, Wis., July 16, 1890.)
- 464 *Asclepias cornuti* (N. Z. B.)
Camp Douglas, Wis., July 12, 1890 (Spec. to be returned.)
- 465 *Asclepias incarnata*, L. (Swamp Milkweed.)
Ht. Snelling, Minn. Sept. 4, 1889 (fruit), July 18, 1889
(fl.). [The Spec. sent is Ht. Snelling Minn. Aug. 24, 1890 (fl.)]
- 466 *Apocynum androsaemifolium*, L. (Spreading Dogbane.)
Camp Douglas, Juneau Co., Wis., July 9, 1890 (Spec. retained - also
Ht. Snelling, Minn., July 17, 1889)
- 467 *Apocynum cannabinum*, L. (Indian Hemp.)
Ht. Snelling, Minn., July 21, 1890 (Spec. not sent.)
- 468 *Acerates viridiflora*, var. *lanceolata* (N. Z. B.)
Camp Douglas, Wis., July 12, 1890 (Spec. retained.)
- 469 *Asclepias purpurascens*, L. (Purple Milkweed.)
Camp Douglas, Wis., July 14, 1890 (Spec. retained.)
- 470 *Menyanthes trifoliata*, L. (Buckbean.)
Mora, Kenabe Co., Minn., June 22, 1889 (not sent.)
- 471 *Gentiana crinita*, Arnol.
Camp Hannay, on Lake Johanna, Minnesota, Sept. 24,
1889 (Spec. retained - also Ht. Snelling, Minn., Sept. 6 + 26.)
- 472 *Gentiana serrata*, Gummer.
Ht. Snelling, Minn., Sept. 20, 1890 (Spec. retained - Sept. 20,
1890; Aug. 29, 1889; Sept. 16, 1888)

- 473 *Lentiana serrata* ?
Mammoth Hot Springs, Yellowstone Park, Wyo., July 26, 1889
(Spec. retained)
- 474 *Lentiana quinqueflora*, Lam.
Camp Douglas, Juneau Co., Wis., Sept. 7, 1890; Lake Johanna,
near St. Paul, Minnesota, 24/1889 (not sent.)
- 475 *Lentiana puberula*, Michx.
Camp Douglas, Wis., Sept. 13, 1890 (Spec. retained - also Ft. Snelling,
Minn., Sept. 5, 25, etc.)
- 476 *Lentiana alba*, Muhl.
Ft. Snelling, Minn., Aug. 10, 1889 (not sent.)
- 477 *Lentiana Andrewsii*, Grisb. (Closed Lentian.)
Camp Douglas, Wis., Sept. 1, 1890 (Spec. retained - also Ft. Snelling,
Minn., Sept 6, 16, etc.)
- 478 *Phlox divaricata*, L.
Ft. Snelling, Minn., June 7, 1890 (Spec. retained - May 12.)
- 479 *Phlox pilosa*, L. (Phlox.)
Fort Snelling, Minn., July 4, 1888 (Spec. retained - July 11,
June 30, July 11; Camp Douglas, Wis., July 12, 1890.)
- 480 *Yonkea americana*. (N. L. B.)
Ft. Snelling, Minn., Aug. 7, 1890 (Spec. to be returned.)
- 481 *Mertensia Sibirica*, Don.
Hells of Yellowstone, R., Wyoming, July 30, 1889. (not sent.)
- 482 *Circaea lutetiana* (N. L. B.)
Fort Snelling, Minn., Aug. 4, 1890. (Spec. retained.)
- 483 *Echinopspermum Lappula* (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (Spec. retained - also Fort
Snelling, Minn., July 14, 1889.)
- 484 *Cynoglossum officinalis*, L. (Common Hound's Tongue.)
Fort Snelling, Minn., Aug. 28, 1889. (Spec. retained.)
- 485 *Phacelia bicolorata*, Jacq.
Mammoth Hot Springs, Yellowstone Park, Wyoming, July 26, 1889
(not sent.)
- 486 *Myrica asplenifolia*, Endl. (Sweet Fern.)
Camp Douglas, Wis., Aug. 16, 1890 (not sent.)
- 487 *Convolvulus sepium*, L.
Fort Snelling, Minn., July 21, 1888. (Spec. retained - July 14, 1890 at
Camp Douglas, Wis.; Ft. Snelling, Minn. Aug. 3, 1890, turned around a
flowering plant of *Helianthus* etc.)

- 488 *Opomaea coccinea*. (N. L. B.)
Ft. Verde, Arizona, Sept. 11, 1876. Morris's Ranch. (to be returned.)
- 489 *Myzalis lanceolata*, Michx. (N. L. B.)
Camp Douglas, Juneau Co., Wis., July 12 (fl.) and Aug. 20 (fr.), 1890.
(Spec. retained -)
- 490 *Myzalis angulata*, L. "Aug. 3, 1890" (N. L. B.) Ft. Snelling, Minn.
Myzalis Virginiana, Muhl. "Aug. 28, 1889" (N. L. B.)
Ft. Snelling, Minn., Aug. 3 + 28 (Spec. retained - Aug. 2, 1890.)
- 491 *Solanum Dulcamara*, L. (Bittersweet.)
Ft. Snelling, Minn., Sept. 17, 1890. (not sent.)
- 492 *Solanum nigrum*, L. (Common Nightshade.)
Ft. Snelling, Minn., Aug. 3, 1890. (not sent.)
- 493 *Solanum Carolinense*, L. (Horse-Nettle.)
Little Missouri River, at Medora, Billings County, N. Dakota,
July 22, 1889 (not sent.)
- 494 *Pentstemon confertus*, Dougl., Var. *caeruleo-purpureus*, Gray.
Mammoth Hot Springs, Yellowstone Park, Wyoming Terr., July
26, 1889 (Spec. retained.)
- 495 *Pentstemon spectabilis*, Thunber.
Copper Canon, Verde Mts., near Ft. Verde, Ariz. (not sent.)
- 496 *Pentstemon glaber*, Pursh.
Golden Gate, Yellowstone Park, Wyo. Terr. July 27, 1889 (not sent.)
- 497 *Pentstemon* Britton did not write anything on the label.
Camp Douglas, Juneau Co., Wis., July 5, 1890. (Spec. to be returned.)
- 498 *Pentstemon pubescens*, Solander. *gracilis*, Nutt. (N. L. B.)
Ft. Snelling, Minn., June 14, 1890 (Spec. retained.)
- 499 *Pentstemon grandiflorus*, Nutt.
Fort Snelling, Minn., June 14, 1890 (Spec. retained.)
- 500 *Chelone glabra*, L. (Turtle-head, Snake-head.)
Camp Douglas, Wis., Aug. 20, 1890 (Spec. retained - also Ft.
Snelling, Minn., Sept. 16, 1888.)
- 501 *Pedicularis lanceolata*, Michx.
Camp Douglas, Wis., Aug. 20, 1890.
- 502 *Pedicularis Groenlandica*, Retz. Var. Britton wrote nothing on label.
Front Creek, Yellowstone Park, Wyoming Terr. (Alt. 8000 feet.)
July 29, 1889. (Spec. to be returned.)
- 503 *Physoctenia Virginiana* (N. L. B.)
Camp Douglas, Wis., Aug. 10, 1890; Ft. Snelling, Minn., Aug.
11, 1889 (Specimens retained - Aug. 14 + 29, 1889, Ft. Snelling,
Minn.; Aug. 16, 1890, Camp Douglas, Wis.)

- 504 *Minulus luteus*, L. (Yellow Monkey-flower.)
Gibbon River, Yellowstone Park, Wyoming Terr., July 27, 1889
(not sent.)
- ✓ 505 *Minulus ringens*, L. (N. L. B.)
Ht. Snelling, Minn., Aug. 7, 1890 (Spec. retained.)
- ✓ 506 *Lysanthes gratioloides* (N. L. B.)
Camp Douglas, Wis., July 14, 1890 (Spec. retained.)
- ✓ 507 *Lysanthes gratioloides* (N. L. B.)
Camp Douglas, Wis., Aug. 20, 1890 (Spec. retained.)
- ✓ 508 *Minulus ringens*, L. (N. L. B.)
Camp Douglas, Wis., Aug. 20, 1890 (Spec. retained.)
- 509 *Linaria vulgaris*, Mill. (Ramsted. Butter and Eggs.)
Camp Douglas, Wis., Aug. 20, 1890 (Spec. retained.)
- 510 *Asarum canadense*, L. (Wild Ginger.)
Ht. Snelling, Minn., April 23, 1889 (not sent.)
- 511 *Eriogonum*
Upper Geyser Basin, Yellowstone Park, Wyoming Terr., July 28,
1889 (specimens to be returned.)
- 512 *Plantago*
Upper Geyser Basin, Yellowstone Park, Wyo. T., July 28, 1889
(Spec. to be returned.)
- 513 *Veronica virginica*, L. (Culver's Root. Culver's Physic.)
Ht. Snelling, Minn., July 17, 1889; Camp Douglas, Wis.,
July 14, 1890 (not sent.)
- 514 *Gerardia tenuifolia*, Vahl. (Slender Gerardia.)
Camp Douglas, Wis., Aug. 23, 1890 (Spec. retained.)
Ht. Snelling, Minn., Aug. 19, 1889 (Spec. retained.)
- 515 *Gerardia pedicularia*, L.
Camp Douglas, Wis., Aug. 20, 1890 (Spec. retained.)
- ✓ 516 *Gerardia ~~quercifolia~~ ^{quercifolia}*, Bo. H. (N. L. B.)
Camp Douglas, Wis., Aug. 20, 1890 (Spec. retained.)
- 517 *Castilleja*
Upper Geyser Basin, Yellowstone Park, Wyoming Terr.,
July 28, 1889 (Spec. retained.)
- ✓ 518 *Castilleja coccinea* - *forma*. (color yellow) (N. L. B.)
Ht. Snelling, Minn., July 10, 1889 (Spec. retained.)
- ✓ 519 *Castilleja coccinea* (N. L. B.)
Ht. Snelling, Minn., June 20, 1890 (Spec. retained.)
- ✓ 520 *Castilleja coccinea* (N. L. B.)
Ht. Snelling, Minn., July 13, 1890 (Spec. retained.)

- 521 *Castilleja*
Ht. Snelling, Minn., May 12, 1889. (Spec. to be returned.)
- ✓ 522 *Utricularia vulgaris*, L. (Greater Bladderwort. (N. L. B.)
Ht. Snelling, Minn., July 5, 1888 (to be returned.)
- ✓ 523 *Utricularia intermedia*, Hayne. (N. L. B.)
Camp Douglas, Wis., July 25, 1890 (to be returned.)
- 524 *Verbena bracteosa*, Michx.
Ht. Snelling, Minn., July 16, 1889. (not sent.)
- 525 *Verbena stricta*, Vent. (Hoary Vervain.) (not sent.)
Ht. Snelling, Minn., Aug. 13, 1890; Sept. 4, 1889; Camp Douglas, Wis., July 16, 1890,
- 526 *Verbena hastata*, L. (Blue Vervain.)
Ht. Snelling, Minn., July 16, 1888. (Spec. retained. Also Aug. 28.)
- ✓ 527 *Scutellaria galericulata*, L. (N. L. B.)
Ht. Snelling, Minn., Aug. 29, 1889 (Spec. retained.)
- 528 *Brunella vulgaris*, L.
Hout Creek, Yellowstone Park, Wyo. T. (Alt., 8000 ft.) July 29, 1889.
(Spec. to be returned.) (Spec. retained.)
- 529 *Goldia spicata*, L. (N. L. B.)
Camp Douglas, Wis., July 14, 1890 (Spec. retained - July 789.)
- 530 *Pycnanthemum lanceolatum*, Pursh. (Mountain Mint or Basil)
Ht. Snelling, Minn., July 29, 1888 (Spec. retained. Also Camp
Douglas, Wis., July 12, 1890, etc.)
- 531 *Brunella vulgaris*, L. (Common Self-heal or Heal-all.)
Camp Douglas, Wis., July 14, 1890. (Spec. retained.)
- 532 *Monarda fistulosa*, L. (Wild Bergamot.)
Ht. Snelling, Minn., July 3, 1888 (Spec. retained.)
- 533 *Lophanthus anisatus*, Benth.
Ht. Snelling, Minn., Aug. 29, 1889 (Spec. retained.)
- ✓ 534 *Scutellaria lateriflora*. (N. L. B.)
Ht. Snelling, Minn., Aug. 11, 1889 (Spec. to be returned.)
Camp Douglas, Wis., Aug. 17, 1890 (not sent.)
- ✓ 535 *Scutellaria galericulata*, L. (N. L. B.)
Camp Douglas, Wis., July 14, 1890 (Spec. retained - July 14.)
- ✓ 536 *Leonurus Cardiacus*, L. 13 (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (Spec. retained - July 16.)
- ✓ 537 *Lophanthus nepetoides* (N. L. B.)
Ht. Snelling, Minn., Sept. 20, 1890 (Spec. to be returned.)
- ✓ 538 *Lycopus* (N. L. B.)
Camp Douglas, Wis., Aug. 14, 1890 (To be returned.)

- ✓ 539 *Senecioium Canadense*. (N. L. B.)
Camp Douglas, Wis., Aug. 14, 1890 (to be returned.)
- ✓ 540 *Senecioium Canadense*. (N. L. B.)
Ht. Snelling, Minn., Aug. 4, 1889 (to be returned.)
- 541 *Mentha Canadensis*, L.
Big Muddy River, N. Dakota, July 22, 1889 (not sent.)
- ✓ 542 *Mentha Canadensis*, L. *Stachys palustris*, L. (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (spec. retained.)
- ✓ 543 *Mentha Canadensis*, L. *Stachys aspera*, Michx.
Ht. Snelling, Minn., Aug. 7, 1890 (spec. retained - Aug 11, 1889, and Camp Douglas, Wis., Aug. 20, 1890.)
- ✓ 544 *Polygonum articulatum* (N. L. B.)
Camp Douglas, Wis., Sept. 9, 1890. (spec. retained.)
- ✓ 545 *Polygonum articulatum* (N. L. B.)
Camp Douglas, Wis., Aug. 25, 1890. (spec. retained.)
- ✓ 546 *Chenopodium album* (N. L. B.)
Camp Douglas, Wis., July 12, 1890. (to be returned.)
- ✓ 547 *Chenopodium hybridum*, L. (N. L. B.)
Ht. Snelling, Minn., Sept. 15, 1890 (spec. retained - Also Camp Douglas, Wis., July 28 (fl.) and Sept. 13 (fr.), 1890.)
- ✓ 548 *Chenopodium Botrys*, L. (N. L. B.)
Camp Douglas, Wis., Aug. 17, 1890 (spec. retained.)
- ✓ 549 *Euphorbia Preslii*, Less. (N. L. B.)
Ht. Snelling, Minn., Aug. 28, 1889 (to be returned.)
- ✓ 550 *Polygonum aviculare*, L. (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (to be returned.)
- ✓ 551 *Sua xanthiifolia*, Nutt. (N. L. B.)
Ht. Snelling, Minn., Aug. 19, 1889 (spec. retained.)
- ✓ 552 *Oenothera serrulata* (N. L. B.)
H. Ruster, Montana, July 24, 1889 (spec. retained - also Bismark, N. Dakota, July 22, 1889.)
- ✓ 553 *Hypericum Ascyron*, L. (N. L. B.)
Ht. Snelling, Minn., Sept. 20, 1890; Camp Doug., Aug. 20 (Spec. retained.)
- 554 *Hypericum maculatum*. (N. L. B.)
Camp Douglas, Wis., July 14, 1890 (fl.) (Spec. to be returned.)
- ✓ 555 *Helianthemum majus*, L. (N. L. B.)
Camp Douglas, Wis., July 7, 1890 (spec. retained - also July 9 and Sept. 10 (fl.!).)
- ✓ 556 *Hypericum Canadense*, L. var. *majus*, Gray. (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (spec. retained.)

- ✓ 557 *Hypericum prolificum*, L. (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (spec. retained.)
- ✓ 558 *Helianthemum majus*, L.
Camp Douglas, Wis., July 13, 1890. (spec. retained.)
- ✓ 559 *Parietaria Pennsylvanica* (N. L. B.)
Ht. Snelling, Minn., Sept. 17, 1890 (spec. (Oct. 10) retained.)
- 560 *Boehmeria cylindrica*. (N. L. B.)
Ht. Snelling, Minn., Oct. 10, 1890 (to be returned.)
- 561 *Xanthium Canadense*, Mill. (N. L. B.)
Ht. Snelling, Minn., Aug. 24, 1889. (to be returned.)
- ✓ 562 *Lithospermum angustifolium*, Michx. (N. L. B.)
Ht. Snelling, Minn., May 30, 1890 (spec. retained.)
- ✓ 563 *Lithospermum canescens*, Lehm. (Puccoon of the Indians.)
Ht. Snelling, Minn., May, 1890. (spec. retained.) (N. L. B.)
- ✓ 564 *Lithospermum hirtum* Lehm. (N. L. B.)
Ht. Snelling, Minn., Camp Douglas, Wis., July 14, 1890. (spec. retained.)
- ✓ 565 *Eriosteum perfoliatum*, L. (N. L. B.)
Ht. Snelling, Minn., August 19, Sept. 17, 1890 (specimen (Aug. 19, fruit) retained.)
- 566 *Eriosteum*
Ht. Snelling, Minn., Sept. 17, 1890
- ✓ 567 *Ceanothus Americanus*, L. (New Jersey Lea.) (N. L. B.)
Camp Douglas, Wis., July 11, 1890 (spec. retained.)
- ✓ 568 *Erythronium alatum*, Pursh. (N. L. B.)
Ht. Snelling, Minn., July 10, 1889 (spec. retained.)
- ✓ 569 *Scrophularia nodosa*. (N. L. B.)
Ht. Snelling, Minn., July 20, 1888 (to be returned.)
- 570
Ht. Snelling, Minn., July 2, 1888 (to be returned.)
- 571 *Euphorbia corollata*, L. (N. L. B.)
Ht. Snelling, Minn., July 16, 1888 (Spec. retained - July 22 and Camp Douglas, Wis., July 11, 1890.)
- 572
Camp Douglas, Wis., Sept. 13, 1890 (Spec. to be returned.)
- 573
Camp Douglas, Wis., July 14, 1890 (Spec. to be returned.)
- ✓ 574 *Penthorum sedoides*, L. (N. L. B.)
Camp Douglas, Wis., Aug. 20, 1890. (Spec. retained.)

- ✓ 575 *Hypericum gentianoides* (L.) R. (N. L. B.)
Camp Douglas, Wis., Aug. 18, 1890. (Spec. retained.)
- ✓ 576 "Indeterminable", N. L. B.
Camp Douglas, Wis., Aug. 25, 1890 (Spec. retained.)
- 577
Camp Douglas, Wis., July 11, 1890 (Spec. to be returned.)
- ✓ 578 *Phytolacca septostachya*. (N. L. B.)
Ht. Snelling, Minn., Sept. 15, 1890 (To be returned.)
- ✓ 579 *Lycium vulgare* (N. L. B.)
Ht. Snelling, Minn., Sept. 15, 1890. (Spec. retained.)
- 580 *Oxybaphus hirsutus*, Sweet.
Ht. Snelling, Minn., Aug. 29, 1889. (Spec. retained.)
- 581 *Oxybaphus myctagineus*, Sweet.
Ht. Snelling, Minn., Aug. 28, 1889 (Spec. retained.)
- 582 *Polygonum emersum* (Michx.) ^{spec. retained}
Ht. Snelling, Minn., July 24, 1888 (not sent.)
- ✓ 583 *Polygonum remossissimum*, Michx. (N. L. B.)
Ht. Snelling, Minn., Aug. 12, 1890. (Spec. retained.)
- ✓ 584 *Polygonum lapathifolium*, L. (N. L. B.)
Ht. Snelling, Minn., Aug. 11, 1889. (Spec. retained.)
- ✓ 585 *Polygonum convolvulus*, L. (N. L. B.)
Camp Douglas, Wis., July 12, 1890. (Spec. to be returned.)
- ✓ 586 *Polygonum dumetorum* var. *scandens*. (N. L. B.)
Camp Douglas Wis., Aug. 24, 1890. (Spec. to be returned.)
- 587 *Eragrostis leucostachya*, Muhl.
Camp Douglas, Wis., Aug. 20, 1890. (Spec. retained.)
- ✓ 588 *Polygonum*. "No good" N. L. B.
Camp Douglas, Wis., Aug. 20, 1890. (Spec. retained.)
- ✓ 589 *Polygonum tenue*, Michx. (N. L. B.)
Camp Douglas, Wis., Sept. 4, 1890. (To be returned.)
- ✓ 590 *Polygonum*. Britton wrote nothing on label.
Camp Douglas, Wis., July 14, 1890. (To be returned.)
- ✓ 591 "Polygonum hydropiperoides?" N. L. B.
Camp Douglas, Wis., July 14, 1890. (To be returned.)
- ✓ 592 *Polygonum sagittatum*, L. (N. L. B.)
Camp Douglas, Wis., Sept. 13, 1890. (To be returned.)
- ✓ 593 *Polygonum persicaria*, L. (N. L. B.)
Ht. Snelling, Minn., Sept. 21, 1890 (To be returned.)
- ✓ 594 *Polygonum Carex*, Olney. (N. L. B.)
Camp Douglas, Wis., Aug. 29, 1890 (To be returned.)

- ✓ 595 *Rumex acetosella*, L. (Field or Sheep Sorrel.) Yes.
Ht. Snelling, Minn., June 21, 1890 (Spec. retained.)
- ✓ 596 *Rumex salicifolius*? "N. L. B."
Ht. Snelling, Minn., Aug. 3, 1890 (To be returned.)
- ✓ 597 *Saxifraga pennsylvanica*, L. (N. L. B.)
Camp Douglas, Wis., July 12, 1890. (To be returned.)
- ✓ 598 *Amaranthus blitoides*, S. Wats. (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (To be returned.)
- ✓ 599 "Amaranthus chlorostachys?" N. L. B.
Ht. Snelling, Minn., Aug. 24, 1889 (To be returned.)
- ✓ 600 "Amaranthus paniculatus" L.? "N. L. B."
Ht. Snelling, Minn., Aug. 2, 1890 (To be returned.)
- ✓ 601 "Amaranthus sp." N. L. B.
Ht. Snelling, Minn., Aug. 2, 1890. (To be returned.)
- 602 *Ulmus americana*, L. (American or White Elm.)
Ht. Snelling, Minn., Aug. 4, 1888 (not sent.)
- 603 *Cannabis sativa*, L. (Hemp.)
Ht. Snelling, Minn., Oct. 1, 1889 (fr.) (Spec. retained - Aug. 1, 1888 (fl.);
Aug. 12, 1890 (leaves); Oct. 1, 1889 (fr.))
- 604 *Urtica gracilis*, Ait. (Slender nettle.)
Ht. Snelling, Minn., July 31, 1888 (not sent.)
- 605 *Humulus lupulus*, L. (Common Hop.)
Camp Douglas, Wis., July 14, 1890 (not sent.)
- ✓ 606 *Laportea canadensis* (L.) Gandoger. (N. L. B.)
Ht. Snelling, Minn., Oct. 10, 1890 (To be returned.)
- ✓ 607 *Carya heterocarya minima* (Marsh), Britt. (N. L. B.)
Ht. Snelling, Minn., Aug. 4, 1888 (Spec. retained.)
- ✓ 608 *Carya heterocarya ovata* (Mill.) Britt. (N. L. B.)
Camp Douglas, Wis., Aug. 24, 1890 (leaf + fr.) (To be returned.)
- 609 *Corylus americana*, Walt. (Common Hazel - sent.)
Ht. Snelling, Minn., June 20, 1888 (not sent - poor spec.)
- 610 *Alnus*
Camp Douglas, Wis., July 11, 1890 (Spec. retained.)
- 611 *Alnus Betula glandulosa*, Michx. (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (Spec. retained.)
- 612 *Alnus Betula* ^{longer-leaved} *prunila*, Michx. (N. L. B.)
Camp Douglas, Wis., July 25, 1890 (Spec. retained; Also Ht. Snell.)
- 613 *Betula*
Camp Douglas, Wis., July 16, 1890 (Spec. (July 7, fr.) retained.)

- 614 *Betula nigra* ? N. L. B. Red Birch
Lemonsirk, at Camp Douglas, Wis., Aug. 16, 1890 (Spec. retained.)
- 615 *Betula papyracea*, Ait. (Paper or Canoe Birch.)
Ht. Snelling, Minn., Aug. 4, 1888 (not sent.)
- ✓ 616 *Asimina speciosa*, Willd. (N. L. B.)
~~*Asimina speciosa*, Willd. (N. L. B.)~~
Ht. Snelling, Minn., Sept. 17, 1890. (Spec. retained.)
- 617 *Quercus coccinea*
Ht. Snelling, Minn., Aug. 7, 1890 (Spec. retained. - Also Camp Douglas, Wis., Aug. 15 + 17, 1890.)
- 618 *Quercus macrocarpa*, Michx. (Bur Oak, etc.)
Ht. Snelling, Minn., Aug. 4, 1888 (Spec. retained - Aug. 4, 1888; 7, 1890.)
- 619 *Quercus*
Camp Douglas, Wis., Sept. 2, 1890. (Spec. retained.)
- ✓ 620 *Quercus rubra* ? N. L. B.
Camp Douglas, Wis., Sept. 9, 1890 (leaves + fruit) (Spec. retained.)
- 621 *Quercus*
Camp Douglas, Wis., Aug. 17, 1890 (2 perfect acorns) (none kept; same as No. 620) (N. L. B.)
- ✓ 622 *Quercus rubra*, L. (N. L. B.)
Ht. Snelling, Minn., Oct. 2, 1890 (leaves + fruit) (Spec. retained.)
- 623 *Quercus macrocarpa* ? (growing in woods)
Camp Douglas, Wis., Aug. 16, 1890 (Spec. retained.)
- ✓ 624 *Quercus macrocarpa* ? N. L. B.
Camp Douglas, Juneau Co., Wis., July 14, 1890 (To be returned.)
- 625 *Quercus alba*, L. (White Oak.)
Camp Douglas, Wis., Aug. 22, 1890 (Spec. retained - Aug. 23)
- 626 *Quercus alba*, L.
Camp Douglas, Wis., July 15, 1890
- 627 *Carya*
Camp Douglas, Wis., July 1890 (2 nuts - last years.) None retained.
- 628 *Symphlocarpus fortidus*
Mouth of Minnehaha Creek, Minn., July 1, 1890. (not sent.) In box (N. L. B.)
- ✓ 629 *Salix postrata lucida*, Muhl. (N. L. B.)
Ht. Snelling, Minn., Sept. 20, 1890. (Spec. retained.)
- 630 *Salix humilis*, Marsh. (N. L. B.)
Camp Douglas, Wis., Aug. 22, 1890 (Spec. retained.)
- 631 *Populus grandidentata*
Camp Douglas, Wis., July 11 (branch green leaves and Sept. 2 (branch of leaves changing to red) (Spec. retained.)

- 632 *Populus tremuloides*, Michx. (American Aspen.)
Ht. Snelling, Minn., Aug. 4, 1888 (not sent.)
- 633 *Populus balsamifera*, L. (Balsam Poplar. Yamacahae.)
Ht. Snelling, Minn., Aug. 13, 1890 (not sent.)
- 634 *Populus monifera*, Ait. (Cotton-wood. Necklace Poplar.)
Ht. Snelling, Minn., Aug. 4, 1890 (not sent.)
- 635 *Populus dilatata*, Ait. Lombardy Poplar.
Camp Douglas, Wis., Sept. 13, 1890. (not sent.)
- ✓ 636 *Hedysaria tomentosa*, Nutt. (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (Spec. retained.)
- 637 *Pinus strobus*, L. (White Pine.)
Camp Douglas, Wis., July 9, 1890. (not sent.)
- 638 *Pinus Banksiana*, Lambert (Gray or Northern Scrub Pine.)
Camp Douglas, Wis., Aug. 23, 1890 (not sent.)
- 639 *Larix Americana*, Michx. (American or Black Larch. Yamarack.)
Camp Douglas, Wis., July 12, 1890 (not sent.)
- 640 *Juniperus communis*, L. (Common Juniper.)
Ht. Snelling, Minn., Aug. 4, 1888 (not sent.)
- ✓ 641 *Scheuchzeria palustris*, L. (N. L. B.)
Camp Douglas, Wis., July 14, 1890 (fr.) (Spec. retained.)
- ✓ 642 *Sisyrinchium angustifolium*, Willd. (N. L. B.)
Ht. Snelling, Minn., May 2, 1890 (Spec. retained.)
- 643 *Iris versicolor*, L. (Larger Blue Flag.)
Camp Douglas, Wis., July 16, 1890 (fl.); July 12, 1890 (fr.) Not sent. (N. L. B.)
- ✓ 644 *Zygadenus elegans*, Pursh. (N. L. B.)
Ht. Snelling, Minn., June, 1890 (Spec. retained.)
- ✓ 645 *Calla palustris*, L. (N. L. B.)
Camp Douglas, Wis., July 9, 1890. (To be returned.)
- ✓ 646 *Aletris farinosa*, L. (N. L. B.)
Camp Douglas, Wis., July 12, 1890. (Spec. retained.)
- 647 *Trillium cernuum*, L. (N. L. B.)
Camp Douglas, Wis., Aug. 16, 1890. (To be returned.) Fruit.
- 648 *Trillium pernum*, L.
Ht. Snelling, Minn., May 12, 1889 (Spec. retained.)
- 649 *Trillium grandiflorum*, Salisb.
Mora, Kenosha Co., Minn., June 22, 1890 (Spec. retained.)
- 650 *Lilium Philadelphicum*, L. (Wild Orange-red Lily & Wood Lily.)
Ht. Snelling, Minn., July 2, 1890 (2 spec.) (Spec. retained.)

- ✓651 *Lilium superbum*, L. (~~Dark cap Lily.~~)
Camp Douglas, Wis., July 12, 1890 (spec. retained - also Fort Snelling, Minn., July 26, 1890.)
- 652 *Allium tricoccum*, Ait. (N. L. B.)
Fort Snelling, Minn., Sept. 15, 1890. (To be returned.) Seed stalk.
- 653 "Allium Canadense ??", N. L. B.
Camp Douglas, Wis., July 14, 1890 (To be returned.) Herbage.
- 654 *Allium Canadense* ~~Kalm~~ *stellatum*, Nutt. (N. L. B.)
Mt. Snelling, Minn., Sept. 1, 1888 (spec. retained - also from Western N. Dakota, along the N. P. R. R., July 22, 1889.)
- 655 *Allium Schoenoprasum*, L.
Upper Geyser Basin, Yellowstone Park, Wyoming Terr., July 28, 1889 (spec. retained.)
- 656 *Allium cernuum*, Roth.
Mammoth Hot Springs, Yellowstone Park, Wyoming Terr., July 26, 1889 (not sent.)
- 657 *Allium Canadense* ~~Kalm~~ *stellatum*, Nutt. (N. L. B.)
Mt. Snelling, Minn., July 21, 1890 (spec. retained.)
- 658 *Allium tricoccum*, Ait. (Wild Leek.)
Mt. Snelling, Minn., June 7, 1890. (young fruit) Not sent.
- ✓659 *Smilax Dioscorea villosa*, L. (N. L. B.)
Camp Douglas, Wis., July 14, 1890. (To be returned.)
- 660 *Smilax herbacea*, L.
Mt. Snelling, Minn., June 18 + 23, 1888 (not sent.)
- 661 *Erythronium albidum*, Nutt. (White Dog's-foot Violet.)
Mt. Snelling, Minn., April 19, 1889 (spec. retained.)
- 662 "Disporum trachycarpum (Wats.) B. & H. = *Proseris trachycarpa*, S. Wats." N. L. B.
Mammoth Hot Springs, Yellowstone Park, Wyoming Terr., July 26, 1889. (Spec. in fruit; to be returned.)
- 663 *Wularia grandiflora*, Smith. (Great-flowered Bellwort.)
Fort Snelling, Minn., May 6, 1889. (Spec. retained.)
- 664 *Asparagus officinalis*, L. (Garden Asparagus.)
Mt. Snelling, Minn., 1890. (not sent.)
- 665 *Chionia borealis*, Raf.
Mora, Kenabe Co., Minn. June 22, 1889 (spec. retained.)
- 666
Camp Douglas, Wis., July 16, 1890 (To be returned.)
- ✓667 *Smilacina* "Uniflorum racemosum (L.) Pitt. (N. L. B.)
Camp Douglas, Wis., July 14, 1890 (To be returned.)

- ✓668 *Uniflorum*! *Canadense* (Desf.) Greene. (N. L. B.)
Camp Douglas, Wis., July 12, 1890 (Spec. retained.)
- ✓669 *Uniflorum* - *Canadense* (L.) Greene. (N. L. B.)
Camp Douglas, Wis., July 9, 1890 (To be returned.)
- 670 *Smilacina trifolia*, Desf. *Uniflorum trifolia*
Fort Snelling, Minn., June 19, 1888 (not sent) 3-leaved.
- 671 *Maranthum Canadense*, Desf. ?
Mt. Snelling, Minn., June 10 + 18, 1888 + 1889. (To be returned.)
- 672 *Acorus calamus*, L. (Sweet Flag. *Calamus*.)
Fort Snelling, Minn., Aug. 4, 1888. (Not sent.)
- 673 *Sagittaria variabilis*, var. *diversifolia*.
Fort Snelling, Minn., July 24, 1888 (Spec. retained.)
- 674 *Sagittaria variabilis*, Engelm.
Fort Snelling, Minn., July 24, 1888. (Spec. retained.)
- 675 *Sagittaria variabilis*, Engelm.
Camp Douglas, Wis., Aug. 20, 1890 (not sent.)
- 676 Red (Swamp?) etc.
Camp Douglas, Wis., July 12, 1890. (To be returned.)
- 677 Smelling Puff Ball
Camp Douglas, Wis., July 12, 1890. (To be returned.)
- 679 *Marchantia polymorpha*. (N. L. B.)
Camp Douglas, Wis., July 25, 1890 (To be returned.)
- 680 *Sphagnum moss*
Camp Douglas, Wis., July 25, 1890 (To be returned.)
- 681 Thin-leaved moss-like plant, Yamarac swamp
Camp Douglas, Wis., July 16, 1890 (To be returned.)
- 682
Camp Douglas, Wis., July 14, 1890. (To be returned.)
- 683 *Fungus*
Camp Douglas, Wis., July 14, 1890. (To be returned.)
- 684 *Aletris* *Plantago*, L. (N. L. B.)
Camp Douglas, Wis., Aug. 20, 1890 (To be returned.)
- ✓685 *Tradescantia Virginica*, L. (N. L. B.)
A Camp Douglas, Wis., Sept. 13, 1890 (To be returned.)
B Camp Douglas, Wis., July 16, 1890 (To be returned.)
- 686 *Picea alba*, Link. (White Spruce.)
Camp Douglas, Wis., July 25, 1890. (Spec. retained.)
- 687 *Pinus resinosa*, Ait. (Red Pine.)
Camp Douglas, Wis., July 9, 1890 (fr.) + Aug. 18 (fr.) (Spec. retained.)
- 688
Camp Douglas, Wis., July 9, 1890 (fr.) + Aug. 18 (fr.) (Spec. retained.)
Cone. Yellowstone Park.

Labels returned by Britton without number: "Nemopanthus mucronata (L.) Presl."

688 Malva crassa, L. N. L.B. "Doubtless no. 310, p. 48."

689. *Asplenium Felix-foemina*, Bernh. (Britton.)
Camp Douglas, Juneau Co., Wis., July 11, 1890.
690. *Osmunda cinnamomea*, L. (Britton.)
Camp Douglas, Wisconsin. July 12, 1890.
691. *Anoelia sensibilis*, L. July 11, 1890. (N. L. B.)
Camp Douglas, Juneau Co., Wisconsin.
692. *Osmunda clatromana*, L. (Britton.)
Camp Douglas, Wisconsin. July 7, 1890.
693. *Eleocharis*
Ft. Snelling, Minn. June 11, 1891. (spec. retained.)
694. *Eleocharis*
Ft. Snelling, Minn. June 3, 1891.
695. *Scirpus lacustris*. July.
Ft. Snelling, Minn. (spec. retained.) Ident. by Coville.
696. *Juncus effusus*. do
near Tomah, Wisconsin. July 24, 1891. (spec. retained.)
697. Ft. Snelling, Minn. June 17, 1891. (to be returned.)
698. Corrigan's or Twin Lakes, Dakota County, Minn. July 8, 1891.
(Spec. to be returned.)
699. *Carex straminea*, Willd. (Identified by Coville.)
Ft. Snelling, Minn. June 19, 1891 (spec. retained.)
700. *Carex straminea*, Willd.
Ft. Snelling, Minn. June 6, 1891. (spec. retained.)
701. *Carex straminea*, Willd.
Ft. Snelling, Minn. May 28, 1891. (spec. retained.)
702. *Carex*
Ft. Snelling, Minn. June 3, 1891. (spec. to be returned.)
703. *Carex conjuncta*. (Identified by Coville.)
Ft. Snelling, Minn. May 27, 1891. (spec. retained.)
704. *Carex*
Ft. Snelling, Minn. June 3, 1891. (spec. retained.)
705. *Scirpus*
Ft. Snelling, Minn. June 25, 1891 (to be returned.)
706. *Carex varia*. (Identified by Coville.)
Ft. Snelling, Minn. May 11, 1891 (spec. retained.)

707. *Carex*
Ft. Snelling, Minn. May 6, 1891. (Spec. retained.)
708. *Carex*
Ft. Snelling, Minn. May 6, 1891. (Spec. retained.)
709. *Carex*
Ft. Snelling, Minn. May 11, 1891. (Spec. retained.)
(Identified by Coville.)
710. *Carex novae-angliae*.
Ft. Snelling, Minn. May 6, 1891. (Spec. retained.)
711. *Carex*
Ft. Snelling, Minn. May 11, 1891. (Spec. retained.)
712. *Carex*
Ft. Snelling, Minn. May 25, 1891. (Spec. retained.)
713. *Carex*
Ft. Snelling, Minn. May 25, 1891. (Spec. retained.)
714. *Carex*
Ft. Snelling, Minn. June 3, 1891. (to be returned.)
715. *Carex*
Ft. Snelling, Minn. June 3, 1891. (to be returned.)
716. *Carex*
Ft. Snelling, Minn. June 3, 1891. (to be returned.)
717. *Carex*
Ft. Snelling, Minn. May 11, 1891. (to be returned.)
(Identified by Coville.)
718. *Carex hystericina*.
Ft. Snelling, Minn. June 3, 1891. (spec. retained.)
(Identified by Coville.)
719. *Carex utriculata*.
Ft. Snelling, Minn. June 3, 1891. (spec. retained.)
720. *Carex*
Ft. Snelling, Minn. June 3, 1891 (to be returned.)
721. *Carex*
Corrigan's or Twin Lakes, Dakota Co., Minn. July 8, 1891 (spec. retained.)
(Identified by Coville.)
722. *Carex retrorsa*.
Camp Douglas, Wis. Aug. 12, 1891. (to be returned.)
722. *Carex*
Ft. Snelling, Minn. June 26, 1891 (spec. retained.)
(Identified by Coville.)
723. *Carex monile*.
Ft. Snelling, Minn. June 19, 1891. (spec. retained.)
(Identified by Coville.)
724. *Carex hystericina*.
Ft. Snelling, Minn. June 25, 1891. (Spec. retained.)
725. *Cyperus strigosus*. (Identified by Coville.) Sedge.
Camp Douglas, Juneau Co., Wis. Aug. 3, 1891 (Spec. retained.)

- 72
725-a. *Cyperus erythrorhizus*. (Identified by Coville.)
726. *Scirpus*
Ft. Snelling, Minn. June 3, 1891. (to be returned.)
727. *Scirpus martinus*. (Identified by Coville.)
Ft. Snelling, Minn. May 30, 1891. (spec. retained.)
728. *Carex*
Ft. Snelling, Minn. April 26, 1891. (spec. retained.)
729. *Carex*
Fort Snelling, Minn. June 4, 1891. (spec. retained.)
730. *Carex*
Ft. Snelling, Minn. June 3, 1891. (spec. to be returned.)
731. *Carex hystrix*. (Identified by Coville.)
Ft. Snelling, Minn. June 3, 1891. (spec. retained.)
732. Sept 6, 1891 (spec. retained.)
Fort Snelling, Minnesota.
733.
Camp Douglas, Wis. Aug. 5, 1891 (spec. retained - Aug. 12.)
734. Fort Snelling, Minnesota. Sept. 6, 1891. (spec. retained.)
735. Fort Snelling, Minnesota. Aug. 20, 1891. (spec. retained.)
736. Camp Douglas, Wis. Aug. 13, 1891. (spec. retained.)
737. Fort Snelling, Minnesota. June 8, 1891. (spec. retained.)
738. Fort Snelling, Minnesota. Aug. 26, 1891 (spec. retained.)
739. Fort Snelling, Minnesota. Sept. 16, 1891. (spec. retained.)
740. Fort Snelling, Minnesota. Sept. 9, 1891. (spec. retained.)
741. Fort Snelling, Minnesota. Sept. 1, 1891. (spec. retained.)
742. Camp Douglas, Wis. Aug. 13, 1891. (spec. retained.)
743. Fort Snelling, Minnesota. Sept. 2, 1891. (spec. retained.)
744. Fort Snelling, Minnesota. Aug. 21, 1891. (spec. - Aug. 22 - retained.)
745. Fort Snelling, Minnesota. June 6, 1891. (spec. retained.)

746. Fort Snelling, Minnesota. Aug. 29, 1891. (spec - Aug. 31 - retained.)
747. Fort Snelling, Minnesota. Aug. 26, 1891. (spec. retained.)
748. Fort Snelling, Minnesota. Sept. 5, 1891. (spec. retained.)
749. Fort Snelling, Minnesota. Sept. 1, 1891. (spec. retained.)
750. Fort Snelling, Minnesota. June 7, 1891. (spec. retained.)
751. Fort Snelling, Minnesota. June 19, 1891. (spec. - June 16 - retained.)
752. Camp Douglas, Wisconsin. July 29, 1891 (spec. retained.)
753. Fort Snelling, Minnesota. Sept. 6, 1891. (spec. retained.)
754. Fort Snelling, Minnesota. Aug. 23, 1891. (spec. retained.)
755. Fort Snelling, Minnesota. Aug. 26, 1891. (spec. retained.)
756. Fort Snelling, Minnesota. Aug. 26, 1891. (spec. retained.)
757. Fort Snelling, Minnesota. Aug. 26, 1891. (spec. retained.)
758. Fort Snelling, Minnesota. Aug. 21, 1891. (spec. retained.)
759. Fort Snelling, Minnesota. June 26, 1891. (spec. retained.)
760. Fort Snelling, Minnesota. June 26, 1891. (spec. retained.)
761. Fort Snelling, Minnesota. June 21, 1891. (spec. retained.)
762. Fort Snelling, Minnesota. June 25, 1891. (spec. retained.)
763. Fort Snelling, Minnesota. June 26, 1891. (spec. retained.)
764. Fort Snelling, Minnesota. June 19, 1891. (spec. retained.)
765. Fort Snelling, Minnesota. July 4, 1891. (spec. retained.)

766. Fort Snelling, Minnesota. June 3, 1891. (Spec. retained.)
767. Fort Snelling, Minnesota. June 28, 1891. (Spec. retained.)
768. Fort Snelling, Minnesota. June 6, 1891 (Spec. - June 21 - retained.)
769. Fort Snelling, Minnesota. Sept. 2 + 13, 1891 (Specimens - both dates - retained.)
770. Fort Snelling, Minnesota. Aug. 23, 1891. (Spec. retained.)
771. Panicum
Fort Snelling, Minnesota.
772. Panicum
Camp Douglas, Wis. July 29, 1891. (Spec. retained - July 31.)
773. Setaria Italica, Kunth. (Millet or Bengal Grass.)
Fort Snelling, Minnesota. Sept. 9, 1891 (Spec. retained.)
774. Bromus
Fort Snelling, Minnesota. Aug. 20, 1891. (Spec. retained.)
775. Bromus
Gumbrot, Goodhue Co., Minn. July 12, 1891 (Spec. retained.)
776. Eizania aquatica, L. (Water or Indian Rice.)
Fort Snelling, Minnesota. Sept. 13, 1891. (Spec. retained.)
777. Fort Snelling, Minnesota. June 13, 1891. (Spec. - June 12 - retained.)
7778. Fort Snelling, Minnesota. June 26, 1891. (Spec. retained.) Cat.
7779. Fort Snelling, Minnesota. June 26, 1891. (Spec. retained.)
7780. Fort Snelling, Minnesota. June 29, 1891. (Spec. retained.)
7781. Fort Snelling, Minnesota. Aug. 20, 1891. (Spec. retained.)
7782. Fort Snelling, Minnesota. Aug. 26, 1891. (Spec. retained.)
7783. Fort Snelling, Minnesota. June 26, 1891. (Spec. ^{to be} returned.)
7784. Camp Douglas, Wis. July 31, 1891. (To be returned.)
7785. Fort Snelling, Minnesota. June 28, 1891. (To be returned.)

786. Cannon Falls, Goodhue Co., Minn. July 10, 1891. (To be returned.)
787. Camp Douglas, Wis. July 29, 1891. (To be returned.)
788. Fort Snelling, Minnesota. June 6, 1891. (To be returned.)
789. Fort Snelling, Minnesota. June 26, 1891. (To be returned.)
790. Panicum
Fort Snelling, Minnesota. Sept. 1, 1891. (To be returned.)
791. Panicum
Houston, Root River Valley, Minn. July, 1891 (To be returned.)
792. Eragrostis
Fort Snelling, Minnesota. Aug. 22, 1891. (To be returned.)
793. Fort Snelling, Minnesota. Sept. 2, 1891. (To be returned.)
794. Fort Snelling, Minnesota. Sept. 13, 1891. (To be returned.)
795. Fort Snelling, Minnesota. Aug. 21, 1891. (To be returned.)
796. Eriophorum polystachyum. (Identified by Coville.)
Fort Snelling, Minnesota. June 14, 1891. (Spec. retained.)
797. Scirpus atrovirens. (Identified by Coville.)
Fort Snelling, Minnesota. Sept. 5, 1891. (Spec. retained.)
798. Scirpus atrovirens. (Identified by Coville.)
Fort Snelling, Minnesota. Aug. 22, 1891. (To be returned.)
799. Eleocharis acicularis. (Identified by Coville.)
Fort Snelling, Minnesota. Aug. 23, 1891. (Spec. retained.)
800. Eleocharis
Fort Snelling, Minnesota. Aug. 23, 1891. (Spec. retained.)
801. Cyperus diandrus. (Identified by Coville.)
Fort Snelling, Minnesota. Sept. 1, 1891. (Spec. retained.)
802. Potamogeton marinus. (Identified by Coville.)
Fort Snelling, Minnesota. Sept. 9, 1891. (Spec. retained.)
803. Heteranthera graminea. (Identified by Coville.)
Fort Snelling, Minnesota. Aug. 23, 1891. (Spec. retained.)
804. Elodea canadensis. (Identified by Coville.)
Fort Snelling, Minnesota. Sept. 1, 1891. (Spec. retained.)
805. Potamogeton fluitans. (Identified by Coville.)
Fort Snelling, Minnesota. Sept. 1, 1891. (Spec. retained.)

806. *Ceratophyllum demersum*. (Identified by Coville.)
Fort Snelling, Minnesota. Sept. 1, 1891. (Spec. retained.)
807. *Heppuris vulgaris*. (Identified by Coville.)
Fort Snelling, Minnesota. Sept. 1, 1891. (Spec. retained.)
808. Fort Snelling, Minnesota. Aug. 23, 1891. (Spec. retained.)
809. *Sparganium eurycarpum*. (Identified by Coville.)
Fort Snelling, Minnesota. Sept. 2, 1891. (Spec. retained.)
810. *Smilacina stellata*. (Identified by Coville.)
Fort Snelling, Minnesota. May 25, 1891. (Spec. retained.)
811. *Smilacina racemosa*. (Identified by Coville.)
Fort Snelling, Minnesota. May 25, 1891. (Spec. retained.)
812. *Allium*
Fort Snelling, Minnesota. June 8, 1891. (To be returned.)
813. *Hicoria minima* (marsh) Britt.?
Near Sparta, Wisconsin. July 22, 1891. (To be returned.)
814. *Hicoria minima* (marsh) Britt.?
Fort Snelling, Minnesota. June 3 + Sept 5, 1891 (both from one tree) (Spec. retained.)
815. *Salix*
Fort Snelling, Minnesota. "met *Dendroica aestiva*." June 7, 1891 (To be returned.)
816. *Salix longifolia*. (Identified by Coville.)
Fort Snelling, Minnesota. June 6, 1891 (Spec. retained.)
817. *Salix humilis*. (Identified by Coville.)
Fort Snelling, Minnesota. April 25, 1891 (Spec. retained.)
818. *Salix nigra*. (Identified by Coville.)
Fort Snelling, Minnesota. April 22, 1891 (Spec. retained.)
819. *Salix fragilis*. (Identified by Coville.)
Fort Snelling, Minnesota. Aug. 22, 1891. (Spec. retained.)
820. *Salix*
Fort Snelling, Minnesota. April 15, 1891 (To be returned.)
821. *Salix discolor*. (Identified by Coville.)
Fort Snelling, Minnesota. April 19, 1891 (Spec. retained.)
822. *Alnus*
Camp Douglas, Wis. Aug. 12, 1891 (To be returned.)
823. *Potamogeton pectinatus*. (Identified by Coville.)
Fort Snelling, Minnesota. (Minnesota Riv.) Sept. 24, 1891 (Spec. retained.)
824. *Potamogeton*
Fort Snelling, Minnesota. Aug. 23, 1891. (Spec. retained.)
825. *Euphorbia*
Fort Snelling, Minnesota. Aug. 22, 1891. (To be returned.)

826. *Euphorbia*
Fort Snelling, Minnesota. Aug. 29, 1891. (Spec. retained.)
827. *Rumex*
Corregan's, Twin Lakes, Dakota Co., Minn. July 8, 1891 (To be returned.)
828. *Rumex*
Camp Douglas, Wis. (dry, sandy barrens). 1891 (To be returned.)
829. *Rumex*
Fort Snelling, Minnesota. Aug. 30, 1891. (Spec. retained.)
830. *Rumex salicifolius*?
Fort Snelling, Minnesota. June 22, 1891. (Spec. retained.)
831. *Polygonum acre*. (Identified by Coville.)
Fort Snelling, Minnesota. Sept. 1, 1891. (Spec. retained.)
832. *Polygonum aviculare*. (Identified by Coville.)
Fort Snelling, Minnesota. Aug. 28, 1891. (Spec. retained.)
833. *Polygonum*
Fort Snelling, Minnesota. Aug. 27, 1891. (To be returned.)
834. *Polygonum duroietorum*. (Identified by Coville.)
Fort Snelling, Minnesota. Aug. 22, 1891. (Spec. retained.)
835. *Polygonum*
Fort Snelling, Minnesota. Aug. 27, 1891. (To be returned.)
836. *Amarantus retroflexus*. (Identified by Coville.)
Fort Snelling, Minnesota. Aug. 27, 1891. (Spec. retained.)
837. *Amarantus tuberculatus*. (Identified by Coville.)
Fort Snelling, Minnesota. Aug. 27, 1891. (Spec. retained.)
838. *Amarantus*
Fort Snelling, Minnesota. Aug. 27, 1891. (To be returned.)
839. *Amarantus*
Fort Snelling, Minnesota. Sept. 1, 1891. (To be returned.)
840. *Nepeta glechoma*. (Identified by Coville.)
Fort Snelling, Minnesota. May 16, 1891. (Spec. retained.)
841. Fort Snelling, Minnesota. (Peters Id.) Sept. 1, 1891. (To be returned.)
842. *Monarda punctata*. (Identified by Coville.)
Camp Douglas, Wis. Aug. 13, 1891 (Spec. retained.)
843. *Mercurialis Canadensis* L.
Cannon Falls, Goodhue Co., Minn. July 10, 1891 (To be returned.)
844. Fort Snelling, Minnesota. Aug. 27, 1891. (To be returned.)
845. Fort Snelling, Minnesota. Aug. 27, 1891. (To be returned.)

846.

Fort Snelling, Minnesota. June 26, 1891. (To be returned.)

847.

Lemonweir River, near Camp Douglas, Wisconsin.
August 3, 1891 (To be returned.)

848.

Fort Snelling, Minnesota. Aug. 21, 1891 (spec. retained.)

849. *Gerardia*
Camp Douglas, Wis. Aug. 4, 1891. (To be returned.)

850.

Physalis

Fort Snelling, Minnesota. June 30, 1891. (spec. retained.)

851

Fort Snelling, Minnesota. (Pills. Id.). Sept. 21, 1891. (To be returned.) ^{Sedge.}

852.

Ellisia nyctalea

(Identified by Coville.)

Fort Snelling, Minnesota. May 14, 1891.

(spec. retained.)

853

Euonymus atropurpureus

(Identified by Coville.)

Fort Snelling, Minnesota. June 16, 1891.

(spec. retained.)

854

Physalis pubescens

(Identified by Coville.)

Fort Snelling, Minnesota. June 23, 1891.

(spec. retained.)

855

Physalis lanceolata

(Identified by Coville.)

Fort Snelling, Minnesota. June 30, 1891.

(spec. retained.)

856

Physalis

Fort Snelling, Minnesota. August 27, 1891. (To be returned.)

857.

Gnaph.

Fort Snelling, Minn. Oct. 6, 1891. (spec. retained.)

A

Ellochloa

Fort Snelling, Minn.

Mammals sent, in Exchange, to Mr.			
H. Stephens			
1214	♀ ad.	Ht. Sulling, Minn.	May 13, 1891. <i>Tamias s. griseus</i> Skin and skull
1357	♂ ad.	do	Sept. 5, 1891. <i>T. s. griseus</i> do
898		<i>Tamias q. neglectus</i>	do
916		" " "	do
895		<i>Sorex cooperi</i>	do
1090		<i>Blarina brevicauda</i>	do
1128		" "	do
950		<i>Vesperimus americanus</i>	do
1179		" "	do
1319		<i>Vesperimus michiganensis</i>	do
1084		" "	do
986		" "	do
1188		" "	do
977		<i>Arvicola riparia</i>	do
981		<i>Arvicola austerus</i>	do
982		" "	do
1108		" "	do
1400		" "	do
Eighteen skins + skulls mailed January 25, 1892.			

Have examined the following
Specimens of the *Falco sparverius* group: -

1	Nova Scotia	3	Brazil	6
2	British America	39	Bogota	2
3	British Columbia	40	Peru	1
4	Massachusetts	2	41 Chili	3
5	Connecticut	3	42 Ecuador	3
6	New York	17	43 Argentine Republic	1
7	New Jersey	1	44 Paraguay	3
8	Pennsylvania	14	45 Pernambuco	2
9	Maryland	6	46 British Guyana	1
10	District of Columbia	1	47 Sta. Magellan	1
11	Virginia	1	Total - - - - -	276
12	Ohio	1	(See lists, pp. 14 to 21.)	
13	Tennessee	1		
14	Illinois	9		
15	Florida	34	E. of Mississippi River	78
16	Louisiana	1	W. of Mississippi River	148
	E. of Miss. River	78	Mexico	9
17	Dakotas	10	Central America	18
18	Montana	12	Oceanic	10
19	British America	2	South America	23
20	British Columbia	8	Total	276
21	Washington	1	To March 28, 1891.	
22	Oregon	2		
23	Wyoming	3		
24	Colorado	7		
25	Nevada	4		
26	Texas	17		
27	Arizona	51		
28	California	20		
29	Lower California	11		
	West of Miss. River	148		
30	Mexico	9		
31	Cuba	2		
32	Haiti	1		
33	St. Eustatius	1		
34	Costa Rica	5		
35	Nicaragua	1		
36	Guatemala	7		
37	Guadeloupe	1		

<u>Addendum.</u>	
Louisiana	11
Florida	2
Connecticut	8
Minnesota (H. X. Holzner)	3
Texas (Ragdale)	2

Addendum.

Louisiana	11
Florida	2
Connecticut	8
Minnesota (H. X. Holzner)	3
Texas (Ragdale)	2

Nature of Object	Locality	Original Donor. (Collector.)	Catalogue Number	Number of Specimens	Remarks (Haw sent, etc.)
<i>Mephitis mephitis</i>	Charlesle, Pa.	S. F. Baird.	670	1	Skull
"	Bois de Sioux	Geo. Suckley	$\frac{1177}{206}$	1	" (fragment)
"	Georgia	Dr. Jones (?)	3902	1	"
"	Ht. Union	T. H. Culbertson	819	1	"
"	Delaware Co, Iowa	S. F. Baird	1807	1	"
"	Loup Fork	F. V. Hayden	3890	1	" (fragment)
"	Eagle Pass, Texas.	A. Schott	$\frac{1113}{127}$	1	"
"	Loup Fork	H. Warren	3370	1	" (no jaw)
"	Matamoros, Mex.	L. Berlandier	1395	1	"
" "occidentalis"	Lower Geyser Basin, Wyo.	C. H. Merriam	$\frac{12409}{11095}$	1	"
"	Huachuca Sta., Ariz.	L. Stejneger	$\frac{25071}{18173}$	1	"
" mephitis	Nesbo Falls, Kans.	B. F. Goss.	4464	1	"
"	Frontera	{ Mex. Bound. Surv. J. H. Clark	1004	1	"
" "californica"	Steilacoom, Wash.	Geo. Suckley	$\frac{3200}{2809}$	1	"
"	Matamoros, Mex.	L. Berlandier	1394	1	"
"	?	?	5062	1	" (no jaw)
"	Santa Clara, Cal.	J. G. Cooper	2031	1	"
" "occidentalis"	California	E. Samuels	2434	1	"
"	Petaluma, Cal.	"	$\frac{2617}{1944}$	1	(TYPE)
"	Hk. Randall, Dak.	E. Coues.	$\frac{12911}{11280}$	1	"
"	Ht. Garimie	J. G. Cooper	$\frac{3327}{3142}$	1	"
"	Palestine Pass, La.	Dr. Wurdemann	$\frac{1878}{292}$	1	"
"	Indianola, Tex.	J. H. Clark.	1620	1	"
" mephitis	Castilla Co., Colo.	D. Baldwin	15670	1	"
P. 2.) " mephitis	?	?	21775	1	Skull.
"	Ht. Richardson, Tex.	Army Med. Mus.	21774	1	"
"	Ht. Bridger	F. V. Hayden	11641	1	"
"	Wyoming	"	10008	1	"
" "occidentalis"	Ogden, Utah	"	12408	1	" (no jaw)
" mephitis	Massachusetts	S. F. Baird.	9550	1	" (no jaw)
" "occidentalis"	Ht. Crook, Cal.	"	$\frac{4195}{3832}$	1	"
"	Costello Co., Colo.	D. Baldwin	15666	1	" (broken)
"	"	"	15668	1	"
"	Port Townsend, Oreg.	Geo. Gibbs	3271	1	" (no jaw)
" "occidentalis"	Steilacoom, Wash.	Geo. Suckley.	3889	1	"
" mephitis	Albany, N. Y.	S. F. Baird.	917	1	"

<i>Mephitis mephitis</i>	Essex Co., N. Y.	S. F. Baird.	3816	1	Skull
"	Ht. Cobb	E. Palmer	$\frac{8099}{9285}$	1	"
"	Kansas	H. Crocker	$\frac{8099}{6557}$	1	"
<i>Lutra canadensis</i>	Unalakleet, Alas.	E. W. Nelson	21480	1	"
"	Tanana R., "	"	21483	1	"
"	Kodiak Id., "	H. Bischoff	9853	1	"
"	Potaka Cr., Ind.	Sam. Turner	21681	1	"
"	Cascade Mts., Oreg.	J. S. Newberry	$\frac{2029}{1191}$	1	"
"	?	?	21770	1	"
"	Alaska	T. J. Minor	8087	1	"
"	"	"	8686	1	"
"	"	"	8688	1	"
"	Mission, Alaska	E. W. Nelson	21481	1	"
"	Kodiak Id., "	H. Bischoff	8036	1	"
"	?	?	11839	1	"
"	Bayfield, Wisc.	J. W. Milner	13671	1	" (no jaw)
"	Michipicotan	Geo. Baniston	4446	1	"
"	Ht. Kearney	W. S. Wood	$\frac{2575}{1877}$	1	"
"	Ht. Resolution	Gas. Lockhart	6228	1	"
"	Ht. Cobb	E. Palmer	8097	1	"
"	?	(Nat. Gallery)	4731	1	"
"	St. Simon's Id., La.	S. W. Wilson	3143	1	"
"	Saranac Lake, N. Y.	J. M. Baker	2147	1	"
"	Labrador	L. M. Turner	23217	1	" (broken)
"	Ht. Nasapee, Lab.	H. Conolly	6786	1	"
"	Essex Co., N. Y.	E. Simonds	3812	1	"
"	Ht. Wayne, Ill.	Lt. Curtis	$\frac{22263}{3980}$	1	"
"	Washington, D. C.	?	433	1	"
"	St. Simon's Id., La.	S. W. Wilson	3142	1	"
"	Washington, D. C.	?	m. m.	1	"
"	Michipicotan	Geo. Baniston	$\frac{4445}{5128}$	1	"
<i>Lutra felina</i>	Sta. Efigenia, Mex	H. Surinchrast	$\frac{21093}{9425}$	1	"
"	"	"	$\frac{12184}{10351}$	1	"
<i>Arctidea americana</i>	?	(Army Med. Mus.)	21777	1	"
"	Platte River	F. V. Hayden	3457	1	"
"	Ht. V. Hayden	{ Upper Mo. Valley of White R.	2148	1	"
"	New Mexico	J. S. Newberry	$\frac{3655}{3766}$	1	" + skin.
"	Charleston, S. C.	E. C. Bidwell	2078	1	"
" <i>berlandieri</i>	Matamoros, Mex.	"	1390	1	" (typical)
" <i>americana</i>	Kansas	"	21771	1	"

<i>Taxidea americana</i>	Wyoming	H. V. Hayden	115651	1	Skull. (no jaw)
"	Continent Burgwyn	Dr. Anderson	$\frac{22935}{4158}$	1	" + skin
" berlandieri	Cape St. Lucas	J. Kantus	4135	1	"
" americana	Repub. Fork Platte R.	W. S. Wood	$\frac{2572}{7874}$	1	"
" berlandieri	Matamoros, Mex	L. Berlandier	1389	1	" (typical)
"	El Cajon Val., Cal	E. R. Creutz	23529	1	"
" americana	Salt Lake region, Utah	Capt. Sternberg	2164	1	"
"	Platte River	H. V. Hayden	3456	1	" (no jaw)
"	"	"	23037	1	" (fragment)
"	Shoalwater Bay, Wash.	J. S. Cooper	2033	1	"
"	Bridge, Utah	F. Hurst	15693	1	"
"	Ht. Randall, Dak.	E. Coues	12908	1	"
"	Bridge's Pass	W. S. Wood	3322	1	"
"	Ht. Bridge	C. S. McCarthy	3656	1	"
"	Dakota	Rathmann	6602	1	"
"	Ht. Crook, Cal.	John Heilner	$\frac{4196}{3832}$	1	"
"	"	E. Coues	13889	1	"
"	New Mexico	"	3767	1	"
"	Ht. Klamath, Oreg.	J. C. Merrill	22851	1	"
"	Springerville, Ariz.	E. W. Nelson	15044	1	Skin
<i>Spilogale phenax</i>	Santa Clara, Cal.	J. S. Cooper	2182	1	Skull
" lucasana	Cape St. Lucas	J. Kantus	4143	1	" (typical)
" phenax	San Bernardino, Cal.	H. Stephens	$\frac{15762}{22612}$	1	" + skin
"	San Diego, Cal.	A. Cassidy	3256	1	Skin

Spilogale phenax The American Museum Examined: -

For those from Means Coll.		see opposite page.		Skins	
	Skull				
<i>Spilogale phenax</i>	Nieacio, Cal.	R. A. Allen	1275	1	0
do	do	541 C. A. Allen	1278	1	1
do	do	540 C. A. Allen	1277	1	1
do	do	539 C. A. Allen	1276	1	1
do	do	2297 skull	2878 skin	0	1
<i>Spilogale</i>	Flagstaff, Arizona	(H. Stephens?)	1900 skull	0	1
<i>Spilogale gracilis</i>	Pinal Co., Arizona	607 W. E. D. Scott	1363	1	1
do	do	608 do	1364	1	1
do	do	610 do	1366	1	1
do	do	611 do	1367	1	1
do	do	612 do	1368	1	1
do	do	(6094) do	1365	1	0

I had the following skins of my collection, when writing description: Nos. 291, 298, 299, 300 (head), 336, 467, 470 (flat). Skulls examined, 11.

Means Coll. No.	Sex + Age	Locality	Date	Skin	Skull	Name	Am. Mus. Skin No.	Am. Mus. Skull No.
236	♀	Near Ft. Verde, Arizona			X	<i>Taxidea americana berlandieri</i>		1935-
698?	♂?	Ht. Verde, Arizona	pickled		X	do	pickled	1936
none	?	Kingsbridge, Devon, England.	?	0	X	<i>Lutra vulgaris</i>	none	1294
475	♀ ad.	Mohelgubna Well, Bedouin Creek, Arizona	Dec. 26, 1886		X	<i>Lutra canadensis</i>		309
703	♂ ad.	Verde River, Arizona	Feb. 13, 1888	0	X	do	none	1937
375	♂ ad.	Mogollon Mts., Arizona	Mar. 11, 1886		X	<i>Felis concolor</i>		1330
520	♂ juv.	Yavapai Co., Arizona	Dec. 1, 1886		X	do		1334
373	♂ ad.	Mogollon Mts., Arizona	Mar. 13, 1886		X	do		1328
290	♂ ad.	Fort Verde, Arizona	Dec., 1884	0	X	do	none	1326-
289	♂ ad.	do	Dec. 8, 1885	X	X	do	in pickle	1324
219	♂ ad.	Whipple Barracks, Arizona	Feb. 28, 1885	0	X	<i>Spilogale phenax</i>	none	1902
273	♂	Ht. Verde, Arizona	Oct. 26, 1885		X	do		1905
298	♀ ad.	20 mi S. Ht. Verde, Arizona	Dec. 29, 1885	X	X	do	2477	1908
299	♀	do	Dec. 30, 1885	X	X	do	2478	1903
300	♀	do	do		X	do	skin of head	1904
320	♂ ad.	do	Feb. 2, 1886		X	do		1906
321	♀ ad.	do	Feb. 6, 1886		X	do		1907
336	♂ ad.	W. of Squaw Peak, 10 miles from Ht. Verde, Arizona	Mar. 13, 1886	X	X	do	2480	1901
396	♂	Fossil Cr., Yavapai Co., Arizona	Apr. 8, 1886		X	do		1890
470	♂	do	Nov. 19, 1886	X	X	do	flat skin, not mounted with Mus. No.	1894
467	♂	Ht. Verde, Arizona	Oct. 7, 1886	X	X	do	2481	1892
291	♂ ad.	do	Dec. 26, 1885	X	skin	do	2476	in skin
?	ad.	Highland Falls, New York	?	0	X	<i>Neophelis nebulosa</i>	none	2020
218	♀ ad.	Whipple Barracks, Arizona	Feb. 28, 1885	0	X	<i>Neophelis</i>	none	1909
220, a	♀ ad.	Fort Verde, Arizona	June 30, 1885	X	X	do	2468	1896
223	♂ juv.	do	July 11, 1885	✓	X	do		1915
226	♂ juv.	do	July 26, 1885	✓	X	do		1887
249	♂ juv.	do	Sept. 26, 1885		X	do		1912
256	♂ juv.	do	Oct. 3, 1885		X	do		1910
257	♂ juv.	do	Oct. 8, 1885		X	do		1911
258	♂ juv.	do	Oct. 10, 1885	✓	X	do		1886 bis
267	♀ ad.	do	Oct. 18, 1885		X	do		1913
268	♂ juv.	do	Oct. 19, 1885		X	do		1914
458	♀ ad.	do	Sept. 16, 1886		X	do		1897
469	♂ juv.	do	Oct. 29, 1886		X	do		1888
699	- ad.	do	March 6, 1888		X	do		1889
700	- juv.	do	March, 1888		X	do		1888
701	- ad.	do	do		X	do		1891
702	- juv.	do	do		X	do		1898

- 142 *Planorbis campaulatus* Say. Ft. Snelling Minn. (Lake Amelia. May 11, 1891.)
- 143 *Succinea obliqua* Say. Ft. Snelling, Minn. (dead shells.)
- 144 *Physa heterostropha* Say. Ft. Snelling Minn. April 20, 1890. living shells.
- 145 *Limnæa palustris* Mull. ^{very near reflexa.} Say. Ft. Snelling Minn. {Living specimen Apr. 17, 1890.
Dead. " " 4, 1890.
- 146 *Helix (Patula) alternata* Say. Ft. Snelling, Minn. April 19, 1890. living & dead.
- 147 *Helix multilunata* Say. Ft. Snelling, Minn. June 16, 1891. living sp.
- 148 *Helix profunda* Say. Ft. Snelling, Minn. June 16, 1891. do
- 149 *Unio ellipsis*, Lea. Ft. Snelling, Minn.
- 150 *Unio eoccineus*, Hild. Ft. Snelling, Minn.
- 151 *Unio ventricosus*, Bar. Cronoco, Minn. July, 1891.
- 152 *Unio spatulatus*, Lea? Very large. Cronoco, Minn. July, 1891.
- 153 *Margaritana marginata*, Say. Cronoco, Minn. July, 1891.
- 154 *Anodonta fermuseana*, Lea? Minnesota River.
- 155 *Anodonta corpulenta*, Crisp? Distorted. {Minnesota River
May 27, 1891
- 156 *Unio rectus*, Lam. Ft. Snelling
- 157 *Unio pustulatus*, Lea. Ft. Snelling.
- 158 *Unio luteolus*, Lam. Var. "Camp Douglas, Wis. (Lemmon's Riv.)
- 159 *Unio cornutus*, Bar. Ft. Snelling.
- 160 *Unio obeneus*, Lea. Ft. Snelling
- 161 *Margaritana confragosa*, Say. Ft. Snelling (No. 4)
- 162 *Unio zigzag*, Lea. Ft. Snelling (No. 1.)
- 163 *Unio elegans*, Lea. Ft. Snelling (No. 2)
- 164 *Helix thyridoides*, Say. Apr. 4, 1890. Ft. Snelling, Minn.
- 165 *Anodonta subelydraea*, Lea.? "Root River, Houston Co., Minn. July 1891
- 166 *Helix monodon* var. "B. "These were found with *Helix monodon* but the tooth is absent." E.A.M. Ft. Snelling.
- 167 *Valvata tricarinata*, Say. Lake Amelia, near Ft. Snelling. May 11, 1891. a very small shell.
- 168 *Helix (mesodonta) albolabris*. Cronoco, Minn. July 13, 1891.
- 169 *Anodonta imbecillis* Say. young. Ft. Snelling.
- 170 *Unio spatulatus*, Lea.? Ft. Snelling.
- 171 *Unio occidentalis*, Lea. Ft. Snelling.
- 172 *Zonites arborius*, Say. Ft. Snelling, Minn. Apr. 6, 1890.

I got *Margaritana marginata* (no 153) also in the Minnesota River Sept. 15, 1891 - a fine living specimen.

173. *Zonites nitidus* Müller?

Three dead shells Minn. Riv. at Snelling. Oct., 1891. (retained)

Shells from Kitten Co., Minn. (Roseau River).

Planorbis trivolvis, Say.

Planorbis (Segmentaria) annigera, Say.

Limnæa palustris, Mull.

" *stagnalis*, Linn.

" *humilis*, Say

Succinea obliqua, Say.

On Sept. 6, 1891; Frank X. Holtzner set out from Fort Snelling for a month's collecting trip up the Minnesota River. He returned on October 5, 1891 with a collection of 33 birds and 65 mammals, most of which were taken at a camp near the town of Shakopee, on the Minnesota River. The following is a list of the specimens taken:—

Birds: No. 1. *Colinus virginianus*

	Sex & Age	1891.
2 <i>Accipiter velox</i>	♂ ad.	Sept. 8
3 <i>Falco sparverius</i>	♀	" 9
4 " "	♂ juv.	" 10
5 " "	♀	" 10
6 <i>Accipiter velox</i>	♀	" 11
7 <i>Colinus virginianus</i>	♀	" 11
8 <i>Ceryle alcyon</i>	♂ ad.	" 13
9 <i>Sitta carolinensis</i>	♂ ad.	" 14
10 <i>Ardea herodias</i>	"	" 14
11 <i>Actitis macularia</i>	"	" 17
12 <i>Dryobates pubescens</i>	♂ ad.	" 18
13 <i>Podilymbus podiceps</i>	"	" 19
14 <i>Sceloporus carolinus</i>	"	" 20
15 <i>Asio accipitrinus</i> (albinistic.)	"	" 21
16 <i>Colaptes auratus</i>	♀	" 21
17 <i>Agelaius phoeniceus</i>	♀	" 21
18 " "	♂	" 22
19 <i>Ardea herodias</i> <i>Botaurus inermis</i>	"	" 23
20 <i>Bonasa umbellus</i>	"	" 24
21 <i>Sceloporus carolinus</i>	♂	" 25
22 <i>Fulica americana</i>	"	" 26
23 <i>Totanus solitarius</i>	"	" 27
24 <i>Ceryle alcyon</i>	"	" 27
25 <i>Ardea herodias</i>	"	" 27
26 <i>Zonotrichia querula</i>	"	" 28
27 <i>Ammodramus</i>	"	" 29
28 <i>Luscalus quiscalus aeneus</i>	"	" 29
29 <i>Sciurus hudsonius</i>	"	" 29
30 <i>Luscalus quiscalus aeneus</i>	"	" 29
31 <i>Asio accipitrinus</i>	"	" 30
32 <i>Amphelis cedrorum</i>	Oct.	3.
33 <i>Podilymbus podiceps</i>	"	4.

Mammals.— No. 1. *Vesperugo rubellus* ♀ young of the year. 107

No.	Sept. 1, 1891	Fort Snelling, Minn.
2	<i>Sciurus hudsonius</i> ♂ juv. Sept. 8, 1891.	Length, 331; tail vert., 139; from knee-joint, 85; ear, 16; nose to occiput, 51 mm.
3	<i>Blarina brevicauda</i> ♀. Sept. 8, 1891.	Length, 130; tail to end of vert., 31; pes. 7.5; pes. br. 5; nose to occiput, 30 mm.
4	<i>Arvicola riparia</i> ♂ juv. Sept. 8, 1891.	
5	" " ♂ ad. Sept. 8, 1891.	
6	<i>Sorex personatus</i> ♂ juv. or im. Sept. 8, 1891.	
7	<i>Vesperugo americanus</i> ♂ juv.	Sept. 8, 1891. Length, 124; tail, 28.5; nose to occiput, 29; pes. 10; manus, 18; nose to ear, 12.5
8	<i>Blarina brevicauda</i> ♀ ad. Sept. 9, 1891.	Length, 124; tail, 28.5; nose to occiput, 29; pes. 10; manus, 18; nose to ear, 12.5
9	<i>Vesperugo americanus</i> ♀ ad. Sept. 8, 1891.	
10	" " ♂ ad. Sept. 8, 1891.	
11	<i>Arvicola riparia</i> ♀ ad. Very large. Sept. 9, 1891.	Length to end of vert., 145; tail to end vert., 34; nose to occiput, 28.5; nose to ear, 21; nose to eye, 12; height of ear, 8 mm.
12	<i>Vesperugo americanus</i> ♂ ad. Sept. 10, 1891.	Length, 141; tail, 64; nose to occiput, 28; height of ear, 13; nose to eye, 13; nose to ear, 20; front leg from knee-joint, 22; pes. 4; hind leg from knee-joint, 36.5; manus, 28.5 mm.
13	<i>Vesperugo americanus</i> ♂ juv. Sept. 10, 1891.	
14	<i>Spermophilus tridecemlineatus</i> ♂ juv. Sept. 10, 1891.	
16	<i>Vesperugo americanus</i> ♂ Sept. 11, 1891.	Length, 146; tail, 69; fore leg, 22; manus, 11; hind leg, 33; pes. 21; nose to occiput, 29; to ear, 20.5; to eye, 13; height ear, 12.75 mm.
17	<i>Spermophilus tridecemlineatus</i> ♂ ad. Sept. 11, 1891.	
18	<i>Sciurus hudsonius</i> ♂ ad. Sept. 12, 1891.	Length, 320; tail vert., 131; nose to occiput, 55 mm.
19	<i>Blarina brevicauda</i> ♀ ad. Sept. 12, 1891.	Length, 131; tail to end vert., 29; nose to occiput, 25; to ear, 29.75; to eye, 16; front foot, 12.5; manus, 12; pes. 16.5; hind foot, 25.
20	<i>Sciurus hudsonius</i> ♀ ad. skull frag. Sept. 12, 1891.	
21	<i>Blarina brevicauda</i> ♂ ad. Sept. 14, 1891.	Length, 141; tail vert., 39; nose to occiput, 30; to eye, 14; to ear, 28.5; fore leg 23; manus, 11; hind leg, 29; pes. 18 mm.
22	<i>Vesperugo americanus</i> ♀ ad. Sept. 14, 1891. "In milk."	Length, 180; tail vert., 82; front leg, 25; hind leg, 41; manus, 11; pes. 22; nose to occiput, 29 mm.
23	<i>Vesperugo americanus</i> ♂ ad. Sept. 15, 1891.	Length, 173; tail end vert., 81; nose to occiput, 29.5 mm.

Camp on Minnesota River at Shakopee.

24. *Vesperimus americanus*. ♂ young of the year. Sept. 16, 1891.
25. *Blarina brevicauda*. ♀ ad. Sept. 16, 1891. Length, 138; tail vert., 33; fore leg, 25; hind leg, 29; manus, 12; pes, 16; nose to eye, 13; ear, 21; occiput, 30 mm.
26. *Zapus hudsonius*. ♀ ad. Sept. 16, 1891. Length, 230; tail vert., 133; front leg, 23.5; hind leg, 31; manus, 11; pes, 31.5; nose to eye, 12; ear, 21; occiput, 26; height of ear, 10.75.
27. *Arvicola riparia*. ♀ ad. Sept. 16, 1891. Skull caught in trap.
28. *Zapus hudsonius*. ♂ young of the year. Sept. 17, 1891.
29. *Vesperimus americanus*. ♂ ad. Sept. 17, 1891. Length, 170; tail vert., 82; front leg, 13; hind leg, 32.5; manus, 11; pes, 22; nose to eye, 14; to ear, 23.5; occiput, 28 mm.
30. *Sciurus hudsonius*. ♂ aged. Sept. 17, 1891. Length, 331; tail vert., 142; fore leg, 61; hind leg, 84.5; manus, 29; pes, 48; nose to eye, 22; to ear, 41.5; occiput, 49; height of ear, 15. Trapped in an old Indian house, on the rafters. These squirrels seem feeding in the manger with horses!
31. *Sorex personatus*. ♂ juv. Sept. 18, 1891. Length, 94; tail, 41; fore leg, 12.5; hind leg, 19 mm.
32. *Blarina brevicauda*. ♂ ad. Sept. 18, 1891. Length, 133; tail vert., 30; fore leg, 22; hind leg, 28.75; manus, 12; pes, 28; nose to occiput, 29.5 mm.
33. *Blarina brevicauda*. ♂ ad. Sept. 18, 1891.
34. *Arvicola riparia*. ♂ young of the year. Sept. 18, 1891.
35. *Sciurus hudsonius*. ♂ ad. Sept. 18, 1891.
36. *Mus decumanus*. ♂ ad. Sept. 19, 1891. Length, 368; tail vert., 173; fore leg, 46; hind leg, 74; manus, 19; pes, 40.5; nose to eye, 32; ear, 41; occiput, 33.5 (38.5?).
37. *Sorex personatus*. ♂ "by chance adult." Sept. 19, 1891.
38. *Vesperimus americanus*. ♂ nestling. Sept. 19, 1891. I have watched the mother carry mine (9) of her young ones out of one end of a straw shack to bring them to the very top - a place which could not be reached. I made a strike at her with a switch, and she dropped this, the 10th one.
39. *Sciurus carolinensis hypophorus*. ♂ young of the year. Length, 493; tail vert., 241; fore leg, 92; hind leg, 122; manus, 39; pes, 72; nose to eye, 30; ear, 58; occiput, 68; ear height, 21 mm. Sept. 20, 1891.

40. *Eutamias gapperi*. ♂ young of the year. Sept. 20, 1891.
41. *Arvicola riparia*. ♂ juv. Sept. 20, 1891.
42. " " ♂ ad. Sept. 21, 1891. "I had this mouse in a cage for 7 days. In this time it ate 1 ear of corn, 2 soda crackers, and one teaspoonful of water. At ^{the end of} this time it died from an unknown cause."
43. *Tamias striatus griseus*. ♂ ad. Sept. 21, 1891. "had 4 grains of corn in its pouches when taken."
44. *Sciurus hudsonius*. ♂ juv. Sept. 22, 1891.
45. *Arvicola riparia*. ♀ ad. Sept. 23, 1891. "Nursing young ones."
46. *Sorex personatus*. ♂ ad. Sept. 23, 1891.
47. *Blarina brevicauda*. ♂. Sept. 23, 1891.
48. *Vesperimus americanus*. ♀ ad. Nursing young ones. Sept. 23, 1891. "note gray head and stripe on back."
49. *Arvicola gambelii*. ♂ young of the year. Sept. 23, 1891.
50. *Sciurus hudsonius*. ♀ ad. Sept. 23, 1891.
52. *Vesperimus americanus*. ♂ aged. Sept. 24, 1891. Length, 177; tail to end of vertebrae, 83; fore leg, 24; hind leg, 36; manus, 10; pes, 20.5; nose to eye, 12.5; ear, 24.5; occiput, 29 mm.
51. *Vesperimus americanus*. ♂ young of the year. Sept. 24, 1891.
53. *Eutamias gapperi*. ♀ ad. Sept. 25, 1891.
54. *Arctomys monax*. ♂ ad. "I shot this mammal (Sept. 25, 1891) as it was crossing a small lagoon about 300 yards wide. After being shot in the neck it made a desperate fight, and I had to drown it."
55. *Sorex personatus*. ♂ ad. Sept. 26, 1891. Skull broken in trap.
56. *Vesperugo subulatus*. ♂ ad. Sept. 26, 1891. Had a very large sore under the wing.
57. *Arctomys monax*. Sept. 26, 1891.
58. *Tamias striatus griseus*. ♂ young of the year. Sept. 26, 1891.
59. *Fiber zibethicus*. ♂ juv. Sept. 28, 1891.
60. *Blarina brevicauda*. ♂ ad. Sept. 29, 1891. Length, 129; tail, 27; fore leg, 20; hind leg, 25; manus, 12; pes, 15.75; nose to eye, 14; ear, 24; occiput, 28 mm.
61. *Blarina brevicauda*. ♂ young of the year. Sept. 29, 1891.
62. " " ♂ ad. Sept. 30, 1891.
63. *Arvicola riparia*. ♂ ad. Oct. 1, 1891.
64. *Sciurus hudsonius*. ♂ juv. Oct. 1, 1891.
65. *Blarina brevicauda*. ♂ juv. Oct. 1, 1891.
66. *Sciurus carolinensis hypophorus*. ♂ young of the year. Oct. 2, 1891.

Mammals sent to American Museum, Nat. Hist., Dec., 1891:-

1383	<i>Lepus americanus virginianus</i> .	Skin & skull.
1384	" " "	Skin + skull.
1382	<i>Lepus americanus</i> (vires).	" + skull.
1211	<i>Arctomys monax</i> .	♂ ad. " + skull
1213	" " "	♀ im. " + skull.
1215	" " "	♂ ad. " + skull.
1235	" " "	♂ im. " + skull.
1239	" " "	♀ im. "
1250	" " "	♂ ad. " + skull.
1269	" " "	♂ ad. " + skull.
1273	" " "	♂ ad. " + skull.
1274	" " "	♂ ad. " + skull
1342	" " "	♀ juv. Skull sent with skin.
1362	" " "	♂ ad. Skin and skull.
1256	" " "	♀ juv. " "
1258	" " "	♂ juv. } Young as large as Rats. Skins + skulls.
1259	" " "	♂ juv. } Same litter.
1203	<i>Procyon lotor</i> .	♂ ad. Skin, skull + os penis.
1381	<i>Lepus americanus</i>	ad. (head only)
1394	" "	♂ ad. (hind feet).
1336	<i>Sciurus niger</i> .	♂ ad. Skull + skin.
1226	<i>Mustela fura</i>	♀ ad. Skull sent with skin
1223	<i>Lepus sylvaticus</i>	Skull sent " "
1396	<i>Mephitis mephitis</i> .	ad. Skull (+ fragments of other skulls) without skin.
1397	<i>Lepus americanus</i>	ad. " (picked up in the field.) " "
Atlas of some Carnivore picked up in Trapper's Camp, Kitteroon Co., Minn., 1891.		
1379	<i>Alce americanus</i> .	♀ ad Right & L. upper molar series of teeth.
1380	<i>Mus americanus</i> .	juv. Skull (broken) without mandible.
1371	<i>Alce americanus</i> .	♀ im. Toothpick bones.
1330	<i>Sciurus carolinensis hypophœus</i> .	Skin + skull sent
1337	" "	" " do
1324	" "	" " do
1289	" "	" " do
1325	" "	" " do
1284	" "	" " do
1278	" "	" " do
1260	" "	" " Skin (no skull)
1285	" "	" " Skin & skull.

1286	<i>Sciurus e. hypophœus</i>	♀ juv. Skin (no skull).
1287	" " "	Skin + skull.
1329	" " "	do
849	" " "	♂ juv. Skin of sucking young.
1115	" " "	♂ ad. " + skull.
1116	" " "	♂ " + skull.
1113	" " "	♀ ad. " + skull.
901	" " "	♀ ad. " + skull.
848	" " "	♀ ad. " + skull.
919	" " "	♀ ad. " + skull.
920	" " "	♀ ad. " + skull.
1114	" " "	♂ ad. " + skull.
1288	" " "	♀ juv. (naked young) " without skull.
878	" " "	♂ ad. " skull.
1337	" " "	♂ juv. " "
885	" " "	♂ juv. " + skull.
1324	848	" " " " " "
1325	" " "	♂ ad. " "
1266	<i>Sciurus hudsonius</i>	Skin and skull (L.)
845	" " "	skin.
853	" " "	♂ skin and skull.
823	" " "	skin and skull (L.)
824	" " "	skin and skull (L.)
844	" " "	♂ skin and skull (L.)
863	" " "	skin and skull. L.
877	" " "	skin and skull.
879	" " "	skin and skull
880	" " "	skin.
881	" " "	skin and skull.
882	" " "	skin and skull.
887	" " "	skin and skull
893	" " "	skin and skull.
902	" " "	skin and skull.
905	" " "	skin and skull.
906	" " "	skin and skull.
826	" " "	skin and skull (L.)
904	" " "	skin and skull
910	" " "	skin and skull.
911	" " "	skin and skull.
921	" " "	skin and skull
924	" " "	skin and skull.
925	" " "	skin and skull.
929	" " "	skin and skull (L.)

928	<u>Sciurus hudsonicus</u>	Skin and skull.
989	"	skin and skull.
1079	"	skin and skull.
1081	"	skin and skull.
1132	"	skin and skull.
1196	"	skin and skull.
1205	"	skin.
1277	"	skin and skull.
1290	"	skin.
1276	"	skin and skull.
1320	"	skin and skull.
1321	"	skin and skull.
1322	"	skin and skull.
1376	"	skin and skull.
1323	"	skin.
1359	"	skin and skull.
1360	"	skin and skull.
1369	"	skin.
1361	"	skin and skull.
1377	"	skin and skull.
1368	"	skin.
1334	"	skin and skull.
1333	"	skin and skull.
1332	"	skin and skull.
1331	"	skin and skull.
1341	"	skin and skull.
1349	"	skin.
822	<u>Lepus sylvaticus</u>	skull.
828	"	skull.
1199	"	skull only.
1200	" <u>caniculus</u> (Lame white Rabbit.)	skull only.
1210	" <u>sylvaticus</u>	skull.
912	"	skull.
1134	"	skull.
1142	"	skull.
918	"	skull.
1199	"	skull.
892	"	skull.
1204	"	skull.
1129	"	skull.

1067 Lepus sylvaticus
 1243 Lepus sylvaticus

1244	"	skull.
843	<u>Spermophilus tridecemlineatus</u>	skin with skull inside
852	"	skin
886	"	skin and skull.
991	"	skin and skull.
995	"	skin and skull.
1016	"	skin and skull.
1034	"	skin and skull.
1044	"	skin and skull.
1045	"	skin and skull.
1069	"	skin and skull.
1074	"	skin and skull.
1216	"	skull only.
1217	"	skin and skull.
1218	"	skin and skull.
1219	"	skin + skull.
1220	"	skin + skull.
1221	"	skin + skull.
1222	"	skin + skull.
1247	"	skin and skull.
1246	"	skin and skull.
1242	"	skin and skull.
1241	"	skin and skull.
1248	"	skin and skull.
1228	<u>Spermophilus franklini</u> 1 ad.	skin and skull.
1356	" 1 juv.	skin and skull.
1233	" 1 ad.	skin (skull broken + destroyed)
1227	" - ad.	skull only. Not skinned.

Note. - There were ~~six~~ (6) skulls of this species. Three were sent to the ^{Am.} museum, and three were kept for myself. One of the ^{latter} is an odd one, numbered 1231, which number is a Geomys! It is probable that I only got the head of this specimen + did not enter it in the book.

840	<u>Geomys bursarius</u>	skin and skull.
971	"	skin and skull.
829	"	skin and skull.
1150	"	skin and skull.
1051	"	skin and skull.
1007	"	skin
1022	"	skin
1008	"	skin

Skull only - no skin
 Skull

1050	<i>Geomys bursarius</i> .		Skin + skull.
997	"	♂	skin + skull.
1024	"		skin
1009	"		skin
1023	"		skin
1012	"		skin
1006	"		skin
1047	"		skin + skull.
977	"		skin
972	"		skin + skull (broken).
1264	"		skin + skull
841	"		skin
1240	"		skin
1263	"		skin and skull.
1231	"		skin + skull
1229	"		skin + skull.
1354	"		skin + skull.
836	"		skin
1093	"		skin + skull.
1206	<i>Tamias striatus gossii</i>	♂ ad.	skin without skull.
835	"	♀ ad.	skull - skin probably sent before.
1207	"	♂ ad.	" " "
1265	"	♀ juv.	" " "
1280	<i>Lutreola vison</i> .	♀ ad.	skin and skull.
1281	"	♂ juv.	" " "
1385	"	♂ ad.	" " "
1271	<i>Tamias quadrivittatus neglectus</i> .	52 spec. sent (see page 196 for list).	
974	<i>Sciuropterus volucella</i>	♂ juv.	skin and skull.
1010	<i>Putorius elegans</i>	♂ ad.	skin + skull.
1052	"	♂ juv.	skin + skull.
1004	"	♂ juv.	skin and skull
1025	"	♀	skin and skull.
1395	"	♂? ad.	skull only.
1143	<i>Putorius longicauda</i>	♂ imperfect	skin without skull (Hornemann's bones caught by cat)
976	<i>Blarina brevicauda</i> .		skin + skull. Means Coll.
983	"		skin + skull. Nat. Mus.
1014	"		skin + skull. Am. Mus.
1015	"		skin + skull. do
1070	"		skin + skull. do

1092	<i>Blarina brevicauda</i>		skin + skull. Am. Mus.
1094	"	"	skin + skull. do
1375	"	"	skin + skull. do
1148	"	"	skin. do
1125	"	"	skin. do
1128	"	"	skin + skull. F. Stephens
1135	"	"	skin + skull. Am. Mus.
1147	"	"	skin. do
1137	"	"	skin + skull. do
1140	"	"	skin. do
1172	"	"	skin + skull. do
1171	"	"	skin + skull. do
1189	"	"	skin + skull. do
1190	"	"	skin + skull. F. Stephens
1151	"	"	skin + skull. Nat. Mus.
943	"	"	skin + skull. Am. Mus.
944	"	"	skin + skull. do
973	"	"	skin + skull. Means Coll.
952	<i>Sorex personatus</i>		skin + skull.
953	<i>cooperi</i>	"	skin + skull.
954	"	"	skin + skull.
955	"	"	skin + skull.
1061	"	"	skin.
1076	"	"	skin + skull.
1101	"	"	skin + skull.
1103	"	"	skin + skull.
1106	"	"	skin + skull.
1109	"	"	skin + skull.
1149	"	"	skin.
1154	"	"	skin + skull.
1155	"	"	skin + skull.
1175	"	"	skin + skull.
1176	"	"	skin + skull.
1177	"	"	skin.
1191	"	"	skin + skull.
1230	"	"	skin.
1363	"	"	skin + skull.
1386	"	"	skin and skull.
1387	"	"	skin and skull.

1267
116Arvicola riparia

ad. June 9, 1891 skull only.

ad. June 9, 1891 skull only.

1268	"	"	ad. June 9, 1891 skull only.
985	<u>Arvicola riparia</u>	♀ ad.	Oct. 7, 1890. Skin + skull Mearns Coll.
977	"	♂	Oct. 6, 1890 Skin + skull F. Stephens
1000	"	♀ ad.	Oct. 10, 1890 Skin + skull Mearns Coll.
946	"	♂ juv.	Sept. 30, 1890 Skin + skull. Am. Mus.
1194	"	♂ ad.	Nov. 30, 1890 Skin + skull. do
1160	"	♀ ad.	Nov. 28, 1890 Skin + skull do
1085	"	♂	Oct. 24, 1890 Skin + skull do
948	"	♀ ad.	Oct. 1, 1890 Skin + skull do
1374	"	—?	Nov. 11, 1891. Skin + skull do
1161	"	♀ ad.	Nov. 28, 1890 Skin + skull do
1112	"	♂ juv.	Nov. 2, 1890 Skin + skull do
838	"	♂ juv.	May 17, 1890 Skin + skull in st. do
1260	"	♂ ad.	June 5, 1891 Skin + skull do
970	"	♂ juv.	Oct. 4, 1890 Skin without skull. do
9201	"	♂ juv.	March 15, 1891 Skin + skull Am. Mus.
1032	<u>Arvicola austerus</u>	♂ juv.	Oct. 17, 1890. Skin + skull Am. Mus.
956	"	♂	Oct. 2, 1890 Skin (no skull). do
981	"	♂	Oct. 6, 1890 Skin + skull F. Stephens
1162	"	♂ ad.	Nov. 28, 1890 Skin + skull Mearns Coll.
999	"	♀ ad.	Oct. 10, 1890 Skin + skull Am. Mus.
1021	"	♀ ad.	Oct. 21, 1890 Skin + skull. Am. Mus.
1005	"	♀ juv.	Oct. 10, 1890 Skin (no skull). do
1166	"	♂ juv.	Nov. 29, 1890 Skin + skull Nat. Mus.
1169	"	♀ juv.	Nov. 29, 1890 Skin + skull Am. Mus.
1165	"	♀ juv.	Nov. 28, 1890 Skin + skull. do
1168	"	♀ juv.	Nov. 29, 1890 Skin + skull do
1164	"	♂ juv.	Nov. 28, 1890 Skin + skull do
1167	"	♀ juv.	Nov. 28, 1890 Skin + skull do
1104	"	♂ juv.	Oct. 29, 1890 Skin + skull do
1108	"	♀ juv.	Oct. 30, 1890 Skin + skull F. Stephens.
1144	"	♂	Nov. 23, 1890 Skin + skull Am. Mus.
1193	"	♂ juv.	Oct. 30, 1890 Skin + skull do
1073	"	♂ ad.	Oct. 21, 1890. Skin + skull do
1027	"	♀ juv.	Oct. 16, 1890 Skin + skull do
1096	"	♀	Oct. 26, 1890 Skin + skull Mearns Coll.
1086	"	♂ juv.	Oct. 24, 1890 Skin + skull Am. Mus.
1028	"	♀ juv.	Oct. 16, 1890 Skin + skull do
1095	"	♂ juv.	Oct. 36, 1890 Skin without skull. do
982	"	♀	Oct. 6, 1890 Skin + skull. F. Stephens.
1083	"	♀ juv.	Oct. 23, 1890 Skin + skull Am. Mus.
1019	"	♀ juv.	Oct. 15, 1890 Skin + skull do

117

Arvicola austerus

♀ juv. Oct. 19, 1890.

Skin + skull. Am. Mus.

✓ 1056	"	♂ ad.	Oct. 7, 1890 Skin + skull Nat. Mus.
✓ 990	"	♂ ad.	Oct. 9, 1890 Skin + skull Mearns Coll.
✓ 993	"	♂	Oct. 15, 1890 Skin + skull do
✓ 1020	"	♂ juv.	Oct. 16, 1890 Skin + skull Am. Mus.
✓ 1026	"	♂	Oct. 15, 1890 Skin + skull do
✓ 1018	"	♂ juv.	Oct. 21, 1890 Skin + skull. do
✓ 1072	"	♀	Oct. 20, 1890 Skin + skull Mearns Coll.
✓ 1062	"	♀ juv.	Nov. 29, 1890 Skin + skull Am. Mus.
✓ 1170	"	♀ juv.	Nov. 28, 1890 Skin + skull do
✓ 1163	"	♂ ad.	June 8, 1891. Skin + skull. F. Stephens.
✓ 1401	<u>Vesperinus americanus</u>	♀ ad.	Nov. 8, 1890. Skin. Am. Mus.
✓ 1117	"	♀	Oct. 17, 1890 Skin + skull Mearns Coll.
✓ 1040	"	"	" Skin + skull Am. Mus.
✓ 1087	"	♂	Oct. 3, 1890. Skin + skull Nat. Mus.
✓ 951	"	♂ juv.	Oct. 14, 1890 Skin + skull Am. Mus.
✓ 1013	"	♂ ad.	Oct. 29, 1890. Skin + skull. do
✓ 1102	"	♂	Oct. 19, 1890 Skin + skull do
✓ 1053	"	♂ juv.	Nov. 12, 1890 Skin + skull do
✓ 1131	"	♂ juv.	Oct. 2, 1890 Skin + skull F. Stephens.
✓ 950	"	♂ juv.	Oct. 7, 1890 Skin + skull Am. Mus.
✓ 984	"	♂	Oct. 17, 1890 Skin + skull do
✓ 1042	"	♀	Oct. 18, 1890 Skin + skull do
✓ 1049	"	♀	Oct. 31, 1890 Skin + skull do
✓ 1110	"	♀	Oct. 30, 1890. Skin + skull do
✓ 1107	"	♂ ad.	Aug. 30, 1890. Skin + skull do
✓ 903	"	♀	Oct. 20, 1890 Skin + skull do
✓ 1059	"	♂	Nov. 3, 1890 Skin + skull Mearns Coll.
✓ 1118	"	♀ juv.	Oct. 17, 1890 Skin + skull Am. Mus.
✓ 1041	"	♂ juv.	Nov. 20, 1890 Skin + skull do
✓ 1184	"	♀ juv.	Nov. 7, 1890 Skin + skull Nat. Mus.
✓ 1127	"	♂	Oct. 21, 1890 Skin + skull Am. Mus.
✓ 1071	"	♂ juv.	Nov. 7, 1890 Skin + skull do
✓ 1126	"	♀ juv.	Nov. 6, 1890 Skin + skull Mearns Coll.
✓ 1124	"	♀	Oct. 19, 1890 Skin + skull Am. Mus.
✓ 1054	"	♂ juv.	Aug. 30, 1890 Skin + skull do
✓ 908	"	♂ ad.	Sept. 7, 1890 Skin. do
✓ 917	"	♀ juv.	Nov. 4, 1890 Skin + skull Mearns Coll.
✓ 1120	"	♀ juv.	Oct. 22, 1890. Skin + skull Mearns Coll.
✓ 1057	"	♀ juv.	July 28, 1891. Skin + skull Am. Mus.
✓ 1310	"	"	"

1133	<i>Vesperimus americanus</i>	♂ juv. Nov. 17, 1890. skin + skull	Nat. Mus.
1058	"	♂ juv. Oct. 20, 1890 skin + skull	Am. Mus.
1111	"	♂ Nov. 1, 1890 skin + skull	do
1057	"	♂ juv. Oct. 20, 1890 skin + skull	do
1335	"	♀ juv. Aug. 3, 1891 skin + skull	do
1316	"	♂ July 29, 1891 skin + skull	do
1311	"	♂ juv. July 29, 1891 skin + skull	do
1327	"	♂ ad. July 31, 1891 skin + skull	do
1296	"	♂ ad. July 25, 1891 skin + skull	do
1297	"	♂ juv. July 25, 1891 skin + skull	do
1309	"	♀ juv. July 28, 1891 skin + skull	do
1295	"	♂ ad. July 25, 1891 skin + skull	do
1319	"	♀ July 30, 1891 skin + skull	F. Stephens
1307	"	♀ July 28, 1891 skin + skull	Am. Mus.
1318	"	♀ ad. July 30, 1891 skin + skull	do
1317	"	♀ ad. July 30, 1891 skin + skull	Mearns Coll.
1326	"	♂ ad. July 31, 1891 skin + skull	Am. Mus.
1308	"	♀ juv. July 28, 1891 skin + skull	do
1173	"	♀ ad. Nov. 29, 1890 skin + skull	Mearns Coll.
1121	"	♀ ad. Nov. 5, 1890 skin + skull	Am. Mus.
1179	"	♂ ad. Nov. 30, 1890 skin + skull	F. Stephens
1181	"	♀ ad. Nov. 30, 1890 skin + skull	Mearns Coll.
1180	"	♂ ad. Nov. 30, 1890 skin + skull	Mearns Coll.
1174	"	♂ ad. Nov. 29, 1890 skin + skull	Am. Mus.
1183	"	♂ juv. Nov. 30, 1890 skin + skull	do
1159	"	♀ ad. Nov. 28, 1890 skin + skull	do
1158	"	♀ ad. Nov. 28, 1890 skin + skull	do
1122	"	♂ juv. Nov. 5, 1890 skin + skull	do
1075	"	♀ Oct. 22, 1890 skin + skull	do
1119	"	♂ juv. Nov. 4, 1890 skin + skull	do
1182	"	♀ ad. Nov. 30, 1890 skin + skull	Nat. Mus.
1251	"	♂ ad. May 26, 1891 skin + skull	Am. Mus.
1254	"	♀ ad. June 3, 1891 skin + skull	do
1253	"	♂ juv. May 26, 1891 skin, without skull.	do
1252	"	♂ juv. May 26, 1891 skin, without skull.	do
1262	"	♀ June 6, 1891 skin + skull	do
2	"	♂ juv. June 4, 1891. Coll. of Louis J. Mearns. Skin.	Am. Mus.
1261	"	♂ ad. June 6, 1891. skin + skull.	Am. Mus.
1257	"	♀ juv. June 4, 1891. skin.	do

1186	<i>Vesperimus michiganensis</i>	♂ juv. Nov. 30, 1890. skin + skull	Am. Mus.
1187	"	♀ juv. Nov. 30, 1890. skin + skull	do
1157	"	♂ juv. Nov. 28, 1890 skin + skull	do
1178	"	♂ juv. Nov. 29, 1890 skin + skull	do
1153	"	♀ juv. Nov. 27, 1890 skin + skull	do
1152	"	♀ ad. Nov. 27, 1890 skin + skull	Nat. Mus.
1065	"	♂ juv. Oct. 20, 1890 skin + skull	Am. Mus.
1066	"	♀ juv. Oct. 20, 1890 skin + skull	Nat. Mus.
1063	"	♂ juv. Oct. 20, 1890 skin + skull	Am. Mus.
1078	"	♀ juv. Oct. 22, 1890 skin + skull	do
1155	"	♂ juv. Nov. 30, 1890 skin + skull	Mearns Coll.
1158	"	♀ ad. Nov. 30, 1890 skin + skull	F. Stephens
978	"	♀ ad. Oct. 6, 1890 skin + skull	Am. Mus.
990	"	♀ ad. Oct. 8, 1890 skin + skull	do
987	"	♂ Oct. 7, 1890 skin + skull	do
1001	"	♂ ad. Oct. 10, 1890 skin + skull	do
986	"	♂ Oct. 7, 1890 skin + skull	F. Stephens
1002	"	♀ Oct. 10, 1890 skin + skull	Am. Mus.
979	"	♂ juv. Oct. 6, 1890 skin + skull	do
1003	"	♂ juv. Oct. 10, 1890 skin + skull	Mearns Coll.
988	"	♂ juv. Oct. 7, 1890 skin + skull	Am. Mus.
980	"	♂ juv. Oct. 6, 1890 skin + skull	do
996	"	♀ juv. Oct. 9, 1890 skin + skull	do
1031	"	♂ juv. Oct. 16, 1890 skin + skull	do
1017	"	♂ juv. Oct. 15, 1890 skin + skull	do
1029	"	♀ juv. Oct. 16, 1890 skin + skull	do
1033	"	♂ juv. Oct. 17, 1890 skin + skull	do
1064	"	♂ juv. Oct. 20, 1890 skin + skull	do
1098	"	♀ ad. Oct. 27, 1890 skin + skull	Mearns Coll.
1097	"	♀ juv. Oct. 26, 1890 skin + skull	Am. Mus.
1099	"	♀ juv. Oct. 27, 1890 skin + skull	do
1100	"	♂ juv. Oct. 28, 1890 skin + skull	do
1091	"	♂ juv. Oct. 25, 1890 skin (no skull).	Mearns Coll.
1087	"	♂ juv. Oct. 24, 1890 skin + skull.	Am. Mus.
1055	"	♀ juv. Oct. 19, 1890 skin.	do
1141	"	♀ ad. Nov. 22, 1890 skin.	do
1139	"	♂ juv. Nov. 21, 1890 skin + skull	do
1145	"	♀ juv. Nov. 23, 1890 skin (no skull).	Mearns Coll.
1136	"	♀ Nov. 20, 1890 skin + skull	Am. Mus.
1146	"	♂ juv. Nov. 23, 1890. skin (no skull).	Nat. Mus.
1087	"	♂ juv. Oct. 24, 1890. skin and skull.	Am. Mus.

1105	<i>Peromyscus michiganensis</i>	♂ im. Oct. 29, 1890, skin + skull	Am. Mus.
1089	"	♀ juv. Oct. 24, 1890 skin + skull	do
1084	"	♀ juv. Oct. 23, 1890 skin + skull	H. Stephens
1088	"	♂ juv. Oct. 24, 1890 skin + skull	Nat. Mus.
1030	"	♀ im. Oct. 16, 1890 skin + skull	do
1060	"	♀ ad. Oct. 20, 1890 skin + skull	Am. Mus.
1037	"	♀ im. Oct. 17, 1890 skin + skull	do
1039	"	♀ ad. Oct. 17, 1890 skin + skull	do
1036	"	♀ im. Oct. 17, 1890 skin + skull	do
1035	"	♂ im. Oct. 17, 1890 skin + skull	do
1038	"	♀ im. Oct. 17, 1890 skin + skull	do
1048	"	♀ ad. Oct. 18, 1890 skin + skull	do
1353	<i>Mus musculus</i>	♀ juv. Aug. 22, 1891 skin, without skull.	do
1352	"	♀ ad. Aug. 22, 1891 skin + skull.	do
1351	"	♂ ad. Aug. 22, 1891 skin + skull.	do
1192	"	♀ im. Nov. 20, 1890 skin + skull	do
1011	"	♂ ad. Oct. 12, 1890 skin + skull	do
1130	"	♂ ad. Nov. 11, 1890 skin + skull.	do
1156	"	♂ ad. Nov. 28, 1890 skin + skull	do
975	"	♂ ad. Aug. 5, 1890 skin + skull	do
1123	"	♀ im. Nov. 6, 1890 skin + skull	Nat. Mus.
994	"	♂ juv. Oct. 9, 1890 skin + skull	Nat. Mus.
957	<i>Zapus hudsonius</i>	♂ im. Oct. 3, 1890, skin + skull.	Am. Mus.
1090	<i>Eutamias gapperi</i>	♀ im. Oct. 25, 1890, skin + skull	do

Plants sent to Dr. George Vasey for
Identification:—
Loaves: No. 1.

- 1 Fort Clark, Texas. Nov. 26, + Dec. 3, 1892.
- 2 Fort Clark, Texas. Dec. 3, 1892.
- 3 Fort Clark, Texas. Nov. 18 + Dec. 3, 1892.
- 4 Fort Clark, Texas. Nov. 26, 1892.
- 5 Fort Clark, Texas. Nov. 18, 1892.
- 6 Fort Clark, Texas. Dec. 3 + Nov. 18, 1892.
- 7 Fort Clark, Texas. Nov. 12, 1892. (No specimen retained.)
- 8 Fort Clark, Texas. Dec. 3, 1892.
- 9 Fort Clark, Texas. Nov. 18, 1892.
- 10 Fort Clark, Texas. Nov. 12 + Dec. 3, 1892.
- 11 Fort Clark, Texas. Nov. 12 + 18, 1892.
- 12 Fort Clark, Texas. Nov. 12, 1892.
- 13 *Peromyscus*
Fort Clark, Texas. Nov. 8, 1892. (Large + small specimens sent,
only small specimens retained.)
- 14 Fort Clark, Texas. Dec. 3, 1892.
- 15 Fort Clark, Texas. Nov. 12, 1892.
- 16 Fort Clark, Texas. Nov. + Dec., 1892.

1892
Febr.

1892
Febr.

Name _____

Length.

Tail vest.

Yarl, Harris

Gar door crown

Can drive north

Distance between
eyes.

Diameter of eye

For just whiskies

Nose to

Eye

Centre of April

lan

Receipt

Ed^{ne} of antichrist
hills & brevity.

Howe's Lumber Store
Cleveland.

Means, length.

Biggest class of
nobles,

Hand knick from
Crae-joint

Dec. 17

5
Tongist claw of peo

175

consist of two

✓1490	21	Thomomys	♂ ad.	200	61	25	16.5	3.	18.	20	32.	40.	192	47	25.	41.5	51.	28.	31.5
✓1489	21	Spermophilusophilomosa	♂ ad.	225	74	25	22.	6.7	16.	21.5	33.	42	235	49	24	7.5	65.	24.	58
✓1487	21	Tamiasinterpres	♂ ad.	220	70	93	5.5	11.	23	7.	35	19	24.	35	45	240	48	22.	5.5
✓1488	51	"	♂ ad.	213	60.	90	5.5	11.	23	7.	35	18	23.	34	43	233	47	21	5.4
✓1477	19	Spermophilusophilomosa	♂ ad.	226	71	91	3	11	24	7.5	30	16.5	20.5	33	42	237	51	23	8.0
✓1501	23	Tamiasinterpres	♀ ad.	217	76	97	6.0	11.5	23	7.	36	17.	22	34	45	225	46	22	5.5
✓1433	13	Thomomys	♀ ad.	196	58		4.	15	3.	27	19.	21	32	38.5	190	47	25.	10.	51.
✓1440	15	Thomomys	♂ ad.	205	65		3.5	6.	13.	3.	28	18	20.5	32	41.	185	44	25	9.
✓1455	18	Thomomys	♀ ad.	194	56	60	3.5	17.	3.	25	17	20	32	39.	184	45	23.	9.	49.
✓1432	12	Thomomys	♂ ad.	253	80			24			29.			43.5	52.		70	33.5	58
✓1434	13	"	♀ ad.	240	73		2.2	22.		30	26.	29.	44	56	230	64	35.	14.	63.
✓1451	18	"	♀ ad.	211	72		2.4	18	4.5	27	19.5	21.5	34	43	191	60	32.	13.	57
✓1450	17	Tamiasinterpres	♀ ad.	head and body	14	5.	tail broken	11.											36.
✓1465	19	"	♀ ad.	"	"	15	5.0	12.	19	6.3	46	16.	21.	35	43	235	47.5	24.	5.2
✓1473	19	"	♂ ad.	226	73	95	6.	11.	21.	6.5	44	16.5	22.	35	44	235	48.	23.	8.2
✓1474	20	"	♀	200	74	94	5.5	10.5	20.	6.0	40	15.5	21.	36	40	227	44.	22.5	5.0
✓1524	27	"	♂ ad.	227	73	95	5.6	12.	22	7.	47.	18.	22.5	35	45	246	47	23.	6.0
✓1531	2	"	♂ ad.	226	68	95	6.7	12.	23.	7.	42	17	22.	32	43	235	46	23	5.5
✓1532	3	"	♂ ad.	head and body	15	3	tail broken	12	22	7	45	17.5	22.	33	44	232	46	23	5.5

To Pierre from Dipodops.

(Prelude.)

To little Pierre I bring this greeting
To indicate my joy at meeting
A biped of another ilk —
A little boy that feeds on milk.

May the story of his own sweet life,
With joy, and worth, and sweetness rife,
In length, and breadth, and depth incline
To dwarf this narrative of mine.

'Me.'

I'm a little Dip-o-dops
Come and watch me lick my chops.
My coat's as soft as finest silk —
The gorgeous raiment of our ilk.
Sitting on my broad hind feet
I look so innocent and sweet
You'd never guess to see me there
That I could jump six feet in air,
Or play the biped act, so fine,
Assisted by this tail of mine
So wondrous long, so taper slim,
So true to wield, so neat and trim,
Tipped with a handsome crested pencil
I never have wished it was prehensile.

I have a cousin, Di-pod-o-mus,
Whom Merriam calls am-big-u-us.
The burrows sand-hills, 'neath mesquite,
In search of beans he finds to eat.
We both love well this dreary waste
Its sand and sunshine suit our taste —
This land of wind, and dust, and heat,
Of greasewood, cactus and mesquite;
But there's one thing that us displeases —
The digging propensity of the Greasers.

Tho' there be folks who think it queer
That Dipodops should write to Pierre,
I'll send these lines to the Hotel Pierson
They might be read by little Pierre's son!

P. S.

It's understood I'll brook no rival —
'Sr. d'Rana' to the Devil! —
When once you've known my winning ways
Froggy d'Rana can go to blazes.
Dip O. Dops.

Number.	1892	Sex and age.	Name.	Length (to end of vertebrae of tail).	Tail to end of vent.	Tail to end of hairs.	Ear above crown.	Ear above notch.
*1445	17	ad.	<i>Dipodomys ambiguus.</i>	225				
1448	16	♂ ad.	<i>Dipodops chapmani ordii</i>	234	127	155	10.5	15.
1453	18	♀ ad.	"	240	134	160	10.5	10.
1462	19	♀ ad.	"	237	140	169	11.	15.
1480	21	♂ ad.	"	239	131	157	10.8	16.
1435	13	♂ ad.	<i>Dipodomys ambiguus.</i>	244	145	173	10.5	14.
1436	13	♀ ad.	"	230	138	181	11.	14.5
1437	13	♀ ad.	"	232	134	159	11.	14.
1438	13	♀ ad.	"	240	135	162	11.5	15.
1439	14	♂ ad.	"	251	148	181	12.5	16.
1441	16	♀ ad.	"	248	145	168	11.	16.
1442	16	♂ ad.	"	251	151	180	11.	15.
1446	17	♀ ad.	"	242	144	184	11.	15.
1447	17	♂ ad.	"	252	149	180	11.	15.
1454	18	♀ ad.	"	232	140	183	11.4	16.
1467	19	♀ ad.	"	240	140	168	10.5	14.5
1476	20	♀ ad.	"	250	145	168	11.	15.
1481	21	♀ ad.	"	246	147	176	10.6	15.5
14								

*Preserved in alcohol.

Distance between eyes.	Diameter of eye.	Longest whisker.	Eye.	Centre of pupil.	Ear.	Tip of ear.	Acoustic.	End of outstretched hind extremity.	Hind limb from olecranon.	Manus, length.	Longest claw of manus.	Hind limb, from knee-joint.	Pes, length.	Longest claw of pes.
							38	173					36	4.7
20.5	5.4	63	24.	26.5	35	50.	42	185	32	13.5	5.2	72	39	4.7
20.5	5.4	60	23.5	27.	35	50.	42	184	31	12.	4.4	71	38	4.1
20.6	5.5	58	23.	27.	35	50.	41.	180	28	10.5	4.5	70	39.5	5.
20.	5.7	58	23.	26.	35	50.	38.5	180	30	12.	4.	71	37.5	4
21.	6.3	60	23.	26.5	34	48.	40.	181	29.	12.	4.	69	37	3.7
20.	6.3	57	23.	26.5	33.5	48.	39.	182	29.	12.	4.2	70	38	4.2
20.	5.5	54	22.	26.	35	47.	38.	172	29.	12.	4.	68.5	37	4.
19.5	5.2	57	24	27.	34	48	40.	183	28	11.5	4.2	69	38	4.
19.	6.0	57	25.	28.	36.	48	41	182	29	11.5		74	39.5	
20.5	5.2	57	24.	27.	34	48	39.	182	31.5	12.	4.7	71	39	4.7
20.5	5.4	58	23.5	27.	34	48	40.	187	31.5	13.	4.2	75	39	4.9
21.	5.2	57	23.	26.	34	48.	39	183	31.	11.5	4.4	72	38	4.7
21.	5.4	61	23.5	26.5	34	48	39	183	31.	11.5	4.4	71	38	4.7
20.5	5.9	63	23.	26.	34	48	40	182	31.	13.	4.5	72	39.5	4.5
20.	5.2	58	23.	26.	35	48.	40.	174	29.	11.5	4.7	70	38	4
20.	5.2	63	22.5	26.	32.	48	39.5	177	31.	11.5	4.2	69	38	4.
21.	6.	60	22.5	25.5	35	50	38.5	180	30.	12.	4.	71	37.5	4.

List of Specimens of *Tamias quadrivittatus neglectus*, Allen.

No.	Sex & Age	Date	Locality	Notes	Remarks	Collector
857	♂ juv	July 26, 1890	Camp Douglas, Oneau Co., Wisconsin	Skin + skull		Am. Mus.
858	♂ juv	do		Skin + skull.	do	do
859	♂ juv.	do		" + skull	do	do
860	♂ juv.	do		" + skull.	do	do
861	♂ juv.	do		" without skull.	do	do
862	♂ juv.	do		" + skull.	do	do
846	♀ ad.	July 15, 1890		" with skull inside.	do	suckling young.
850	♂ juv	July 18, 1890		" " " "	do	do
851	♀ ad.	do		" without skull	do	nursing young.
854	♂ ad.	July 26, 1890		" "	do	do
855	♂ ad.	do		" "	do	do
856	♂ ad.	do		" + skull	do	do
864	♀ ad.	Aug. 17, 1890		" without skull	do	has suckled young.
865	♂ juv	do		" + skull.	do	Prof. Baldwin looked at?
866	♂ juv.	do		" without skull	do	1/2 of year.
867	♂ ad.	Aug. 18, 1890		" "	do	do
868	♂ ad.	do		" + skull	do	do
869	♂ ad.	do		" + skull	do	do
870	♀ ad.	do		" + skull	do	do
871	♀ ad.	do		" + skull	do	do
872	♀ im.	do		" without skull	do	do
873	♀ im.	do		" "	do	do
874	♀ im.	do		" + skull.	do	do
875	♂ juv.	do		" + skull	do	do
876	♂ juv.	do		" + skull.	do	do
888	♂ ad.	Aug. 27, 1890		" + skull	do	do
889	♂ ad.	do		" + skull	do	do
890	♀ im.	do		" + skull	do	has never suckled young.
894	♂ ad.	Aug. 29, 1890		" + skull	do	do
895	♂ ad.	do		" + skull	do	do
896	♂ ad.	do		" + skull.	do	do
897	♀ juv.	do		" + skull	do	young of the year
898	♀ im.	do		" + skull.	do	do
899	♀ im.	do		" + skull	do	do
900	♀ im.	do		" + skull.	do	do
915	♂ ad.	Sept. 5, 1890		" + skull.	do	do
916	♂ ad.	do		" + skull	do	do
1291	♀ juv	July 25, 1891		" + skull.	do	do

No.	Sex & Age	Date	Locality	Preparation	Measurements	Remarks
1292	♂ juv	July 26, 1891	Camp Douglas, Wisconsin.	Skin + Skull	0	Am. Mus.
1293	♀ juv	do	do	Skin + Skull	0	do
1294	♂ juv	do	" " "	do	0	do
1298	♀ ad.	do	" " "	do	✓	do
1299	♂ juv	July 26, 1891	" " "	do	0	do
1300	♂ juv	do	" " "	do	0	do
1301	♂ juv	do	" " "	do	0	do
1302	♀ juv	do	" " "	do	0	do
1303	♀ juv	do	" " "	do	0	do
1304	♀ juv	do	" " "	do	0	do
1305	♀ juv	July 27, 1891	" " "	do	0	do
1306	♀ juv	do	" " "	do	0	do
1314	♀ ad.	July 29, 1891	" " "	do	✓	do
1315	♀ ad.	do	" " "	do	✓	do
1338	♂ juv	Aug. 5, 1891	" " "	do	0	Mearns Coll.
1339	♀ juv	do	" " "	do	0	Am. Mus.
1343	♂ juv	Aug. 12, 1891	" " "	do	0	do
1344	♂ juv	do	" " "	do	0	do
1345	♀ juv	do	" " "	do	0	Nat. Mus.
1346	♀ ad.	do	" " "	do	✓	Nat. Mus.
1347	♀ ad.	do	" " "	do	✓	do
1348	♀ ad.	do	" " "	do	✓	Am. Mus.
—	♂ juv	Aug. 9, 1891	Skin with skull in it	do (F. X. Holzner)	0	Holzner.

Note. — See description, commencing on page 220 of this notebook.

200

Mammals

201

Number.	Sex and Age.	Length to end of caudal vertebrae.	Tail to end of vertebrae.	Tail to end of hairs.	Tail, breadth expanded.	Head and body.	Ear, height above crown.	Ear, height above notch.	Length of longest whiskers.	Girth of chest.	Distance between eyes.	From tip of nose to	Eye	Centre of pupil.	Ear	Muscle auditive.	Tip of ear	Occiput	Ear to outermost hind limb.	Coracoid process.	Alcleron process.	Manus, length.	Width of manus.	Longest claw of manus.	From great trochanter.	From knee-joint.	Length of pes.	Width of pes.	Longest claw of pes.	Mammæ
<i>Sciurus</i> 15	♀ ad.	480	220	310	120	275	22	32	65	160	33	31	39	57	58	82	70	415	125	95	50	13.0	9.5	175	125	68	14.5	9	4 pairs	
22	♀ ad.	500	245	320	120	265	22	32	65	160	34	31	39	57	58	82	71	418	125	96	50	13.5	9	177	128	69	14.5	9	"	
23	♀ ad.	505	232	320	120	287	22	32	65	150	33	31	39	57	58	82	71	440	130	98	50	13.0	9	183	132	70	15	9	"	
29	♀ ad.	525	248	340	130	290	23	33	65	160	33	32	40	58	59	83	74	445	129	97	51	14.0	9.5	183	135	74	15	9	"	
24	♂ ad.	466	208	278	120	269	21	31	67	140	33	31	38	57	58	81	69	415	121	94	48	13	9	180	128	71	15	8		
26	♂ ad.	500	243	320	125	267	23	33	70	160	34	31	39	57	58	82	73	420	126	97	50	13	9	180	130	72	15	9	no skull	
<i>Tamias</i> 56	♂ ad.	255	84	106	35	168	11	19	34	90	21	18	23	38	38	56	48	248	62	48	22.7	7.8	4.2	88	68	37.5	8.2	4.5	4 pairs	
<i>Tamias</i> 57	♀ ad.	244	92	110	30	153	11.4	19.5	28	80	20	18	23	36	36	54	45	230	59	45	22	7.5	4.1	88	64	35.5	8.0	4.4	4 pairs	
<i>Tamias</i> 42	♂ ad.	200	86	114	33	115	11	15	32	65	16	13	16.5	28	27.5	43	34	181	50	37	17.5	5.1	3.1	77	57	31.5	6.0	4.0		
58	♂ ad.	201	90	117	36	112	11	15.5	31	65	16	13	17	27.5	27.5	43	35	186	50	38	18	5.5	3.3	80	60	32	6.0	3.7		
59	♀ ad.	211	95	123	40	116	11	15.0	32	65	15.5	13	17	28	28	45	35.5	186	49	37.5	18	5.8	3.7	76	57	32	6.0	3.6	mammæ 4 pairs	
<i>Sciurus</i> 74	♂ ad.	328	122	167	65	207	15	24	55	100	28	21	26	41	40	63	51	318	91	67	35	9	6	126	93	50	10.5	7.0		
75	♂ ad.	325	140	188	70	200	15	24	55	105	27	21	26	42	41	64	52	312	90	66	35	9	6	124	92	50	10.5	7.0		
<i>Sciurus</i> 76	♂ ad.	490	230	320	120	275	23	33	73	155	34	30	38	55	55	80	70	426	125	96	50	13.5	9.2	180	129	70	15	8.5		
77	♂ ad.	480	220	310	120	275	22	32	70	160	33	31	39	58	58	82	70	418	125	96	50	13.5	9	180	128	71	15	9		
<i>Sciurus</i> 89	♂ ad.	495	225	295	115	270	21	31	70	140	32	32	39	58	58	83	72	435	125	94	49	12.5	8.6	183	130	69	14.5	9		
83	♂ ad.	475	200	290	135	280	21.5	32	60	160	33	32	39	58	58	83	74	422	124	92	46	13.5	8	185	130	70	15	9	no skull	
84	♂ ad.	490	223	290	115	275	22.5	34	70	160	33	31	39	58	58	83	73	420	127	94	47	13	8	183	130	68	15	9	no skull	
<i>Sciurus</i> 90	♂ ad.	580	270	355	150	325	19	32	70	160	39	33	40	60	60	90	77	495	140	106	53	15	9.7	197	142	79	18	10	skull diameter 40, 10	
<i>Sciurus</i> 100	♂ ad.	176	135	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	no skull
<i>Sciurus</i> 101	♂ ad.	340	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	no skull
<i>Tamias</i> 110	♂ ad.	193	77	110	35	111	10	15	26	65	15	13	17	26	26	43	34	178	50	37	17.5	5.0	3.0	75	56	31	6.0	3.0	skin pinned	
111	♀ ad.	199	86	115	35	114	11	15.5	30	65	15.5	13	17	27.5	28	43	35	180	50	38	18	5.7	3.0	78	58	31	6.0	3.0		
112	♀ ad.	200	93	120	35	110	11	15.5	30	65	15.5	13	17	28	28	43	37	183	50	38	18	5.2	3.5	80	60	32	6.0	3.5		

August 3, 1891. Camp Douglas, Wis.

Vesperinus americanus ♀ im. Not measured; skin + skull.
Colinus virginianus. - One seen by Dr. Sully.

August 4, 1891. Camp Douglas, Wis.

Sciurus niger. ♂ ad. Measurements on Table.
Scrotum and soles of feet purplish black. Iris dark hazel. Claws black at base, shading to horn-color at tip. Shot in white oak woods, in low ground. He lived in a nest of green white-oak leaves on twigs in white oak-tree.

Sciurus c. hypophoea. ♂ immature. Probably young of the preceding year. Not measured. Length 463; tail, 207; pes, 67.

Piranga erythromelas ♂ ad. Changing from the red to green seasonal phase of plumage; about equally divided.

Crotalus v. serpens. (the 400 Snake). I heard this snake rattle exactly like a Rattle Snake. It lay in thick herbage (brakes, *Asplenium*, *Adiantum*, etc., on dry leaves. I retreated as soon as I heard it, loaded with No. 12 shot, and then went up and opened up the bushes until I could see it on the ground. It kept on rattling. I shot it in two and preserved the tail end. The front escaped and hid in the herbage. I found a small sharp spine at the apex of the tail. Skin preserved. Was the rattle made by rapidly beating the horns joint on the dead season? Determined by Leonard Stejneger. (See page 208.)

Geothlypis trichas juv. First plumage. Not measured.

Dendroica pennsylvanica ♂ ad. Shot in white oak woods. Not measured.

Aug. 5, 1891. Camp Douglas, Wis.

Tamias q. neglectus ♂ juv. Killed at one shot; not measured.

" " " ♀ juv.

Merula migratoria ♂ juv. Young of year, changing to autumnal pl.

Spinus tristis ♂ ad. Beginning to change to winter plumage.

Aug. 7, 1891. Camp Douglas, Wis.

Scalops argentatus ♂ ad. Measurements on Table.

Sciurus hudsonius ♂ ad. do skin + pines

Turdus fuscescens? ♀ ad do

Turdus aonalaschkae pallasi ♀ juv. Young of year; not meas.

Geothlypis trichas ♂ ad. Not measured.

Helminthophila nificapilla do

August 8, 1891. Camp Douglas, Wis.

Arctomys monax ♀ young of year. Not measured. Shot on the summit of Twin Bluffs.

August 9, 1891. Camp Douglas, Wis.

Chordeiles virginianus. - This morning they began crying at 3.30 A.M., as the guard calls.

Antrostomus vociferus. - Common about the bluffs but seldom heard at this season.

Bubo virginianus. - Was shown two breeding places in hole in cliffs at Twin Bluffs yesterday. I picked up some of its feathers.

Taxidea americana. - Mr. Heath told me a neighbor of his shot one near his place last fall; but they are uncommon.

Peromyscus michiganensis. - I picked up a dead one in our camp to-day.

Mr. Heath said that there were plenty of *Lanius* near Lomah. I have seen none at Douglas.

August 12, 1891. Camp Douglas, Wis.

Tamias q. neglectus. ♂ juv. } young of the year
" " " ♂ juv. } not measured.
" " " ♀ juv. }
" " " ♂ ad. Measurements on Table.
" " " ♀ ad. } measurements on table.
" " " ♀ ad. } Both have recently nursed young.

Chordeiles virginianus ♂. Not measured.

Rana sylvatica } Common.
Tree Frog

Sciurus hudsonius. ♀ ad. Not measured.

Skinned by Holzner. Skull in skin. Nest in a cliff, built in a small hole of similar material to that of tree nests.

Sciurus c. hypophoeus. - Four skulls from Root River, Minn. were cleaned up, and all found to have a small premolar = $\frac{6-6}{5-5} = 22$

Letter relating to Snake (No. 93 See p. 206) Shot at
Camp Douglas, Wisconsin:

"United States National Museum

"under Direction of

"The Smithsonian Institution

"Washington Sept. 4, 1891.

"Dr. Edgar A. Mearns

Fort Snelling, Minn.

Dear Dr.:-

The meetings of the A. A. A. S. and the Geologists have kept me so busy that I have found no time till now to answer your letter of Aug. 18. So far as I can make out from the fragment sent - and I think the identification is quite correct - the snake is what is usually called Coluber vulpinus, the Fox Snake. Whether there ~~was~~ also a rattlesnake present among the weeds is very hard to tell, but as it is well known that the Colubers are capable of producing a sound very much like that of the rattle by beating the tail rapidly against dry leaves or similar objects, I would not be surprised if the sound you heard really came from the snake you shot. "The considerable shaking of the bushes all about the spot" was probably produced by the anterior portion of the wounded snake which, if I understand your letter aright, you did not find.

Yours sincerely

Leonhard Stejneger

Curator Dept. of Rept & Batr. "

Record of the March to Camp Douglas, Wis.
from Ft. Snelling, Minn., July 8 to 24, 1891.

Distance 227.52 miles

Total number of hours marched 79.55

Rests en route 19.45 hours.

Number of Camps 15.

Highest temperature, 88°: lowest, 48°:

~~Average~~ Temperature last twelve days

4 a.m.	12 m.	2.30 P.M.
58°	77°	80°
68°	86°	86°
48°	70°	70°

Average

Maximum

Minimum

Average of the three daily temperatures 72° ~~58°~~ 78° ~~79°~~

Average rate of marching per hour 2.85 miles.

Distances given average of 3 odometers.

Spermio tristis. - Respecting the seasonal changes of plumage in this species, it is noticed, in looking over the small series of specimens (14) from Minnesota and Wisconsin ^{before me}, that a female taken Nov. 28 (No. 7257) has assumed the complete winter dress. Four specimens (~~both sexes~~), including both sexes, taken February 5th are still in winter plumage, and show no signs of the summer garb; ~~but a female (No. 7160) taken January 17th is almost as yellow as the summer dress.~~ ^{July!} A male, killed April 23, is molting and about half through the change from winter to summer plumage, the sides, rump and scapulars appearing bright yellow, and the black cap ~~appearing~~ ^{commencing} behind, while the forehead, nape, back and middle tract below are still colored as in winter. Of two females taken May 9, one is mostly in winter and the other mostly in summer dress; and a female taken May 16 is intermediate, showing a good deal of the winter coloring in the median line below. A male killed August 5th is still in perfect summer plumage.

Calcarine lapponicus. - A series of 72 specimens from Minnesota, taken Nov. 8 to May 11, shows the following seasonal conditions:

~~Males taken~~ In November, males have the black of the throat and sides of head concealed by white or pale rusty tips to the feathers, though the back shows more distinctly on the jugulum and

sides of the chest. The sides of the neck and the underparts are more distinctly tinged with pale buff. The coloring of the upper surface in general does not differ materially from that of spring males, in which the throat has changed to black. During the winter, the paroties and postocular stripe are buff, and the black of the fore neck concealed by broad buffy white tips to the feathers; indeed those of the chin are often whitish nearly or quite to the base, so as to preclude all possibility of their changing to jet black simply by the wearing away of the tips of the feathers. * A large series of ^{molted} males, taken in

* In this connection, I would refer the reader to Mr. E. W. Nelson's extended notes on the ^{changes of} plumage of this species, contained in his valuable report on the natural history collections made by him in Alaska (p. 185), from which the following is an extract: "The males reach the Upper Yukon on their return in spring by the 5th to the 18th of April in early perfect breeding dress, and from the examination of specimens obtained there by Mr. McQuesten, as also of others taken in full breeding plumage, I am led to believe that, like the Snow Bunting, this bird does not undergo a spring molt, but attains its breeding plumage merely by the wearing away of the light edges to the feathers; at the same time the feathers are imbued with a richer shade and a greater amount of coloring matter."

the month of March, affords conclusive proof that the black of the fore neck and sides of the head is assumed coincidentally with the spring molt. The black feathers, usually, but not invariably, first replace those of the winter plumage around the border of the throat-patch, often enclosing an island of longer white feathers of the winter dress; often, however, the white disappears last from the chin. Sometimes the new feathers have pale edges, but these are narrow, and speedily wear away, as do the ochraceous buff tips to the feathers of the crown. The specimens taken latest in the season (May 11), have the throat and sides of head solidly black; but the top of the head still shows ^{some} ochraceous edging to the feathers. By this season the base of the bill has changed from brown to yellow; and the gular border of the black tract is sharply limited, & cut off from the black of the flanks and sides of

the chest by a white interspace. The throat does not usually become black before April, when the spring molt is complete, though several with ^{spots} nearly ^{all} black were taken from March 17th to 24th.

Pipilo erythrophthalmus. - Six specimens from Minnesota and Wisconsin have considerable white on the outer webs of secondaries. Is this the case with the eastern bird?

Pranga erythronelas. - Two young males (nos. 7179 + 7187), taken at Camp Douglas, Wisconsin August 17 and 24, respectively, are changing from the first plumage to that of the first autumn. In the first plumage the wings have ^{a similar} coloring to ^{the} females; but, with the autumnal moult the wings acquire the black plumage of the adult male, the change commencing with the lesser wing-coverts and scapulars. They are gregarious at this ^{time} ~~season~~, and utter a peculiar call, not heard at other seasons.

One of five spring females (No. 7054) differs markedly from the others in having a decided ~~stee~~ tawny shade to the upperparts, and the underparts deeper, more ochraceous yellow.

An adult male (No. 7301), taken at Camp Douglas, Wisconsin August 4, 1891, has half finished the fall molt, and appears half in the red summer plumage, and half in ^{the} ~~that~~ olive-green and yellow livery of autumn. ^{the molt is general} All of the rectrices but one are shed, the new ones being about an inch in length. The neck all round, upper tail-coverts, edge of scapulars and middle of abdomen are still red.

Geothlypis trichas. - A ^{few} males, especially No. 7087, are especially bright, having the yellow extending throughout the underparts, and closely approaching var. *occidentalis*.

Lepus sylvaticus. — The Gray ~~Wood~~ Rabbit of Minnesota and the rest of the ^{watered} Upper Mississippi differs considerably from the common Wood Rabbit of the New England and Middle States or even of Ohio. If the western range of this animal were limited to the region lying east of the plains, like that of the Chipmunk (*Tamias striatus*) and Gray Squirrel (*Sciurus carolinensis*), its variation from the eastern type would warrant its separation as a geographical race, or subspecies; but, as the variation is, on the whole towards the western or plains form already designated as var. *nuttallii*, it seems best, for the present, not to name an intermediate form. The 'Cottontail' of this region differs from the eastern in ^{being} its ^{slightly} larger size, and much grayer coloration, and by ^{having} ^{lacking} ^{much} the absence of the tawny or ochraceous rufous coloring of the eastern animal.

I have 16 skins, ^{of adults, and two young the size of rats.} before me (one of these belongs to H. X. Holzner; there are a number of others previously (1889) sent to the Am. Mus.), taken at the following seasons: March (1), April (3), May (2), ^{July} June (1), August (1), Sept. (2), Oct. (2), Nov. (3) = 16.

The 8 spring specimens (March 29 to May 14) are characterized by grayness, showing conspicuously posteriorly on the rump and thighs. In the fall (Oct + Nov., 6 specimens) there is also a conspicuous patch of gray behind, contrasting with the summer pelage, in which the rump is not conspicuous ^{with black, as the rest of the upper surface.} lighter, but the gray rump patch in these fall specimens, is more mixed.

At all seasons, the sides are grayish, ~~as contrasted~~ lacking the fulvous tinge of the back, except ^{on} a triangular area at the front of the thigh, separating the gray area of the flank from that of the rump.

Towards the end of April the spring molt begins, taking place first around the nose and eyes, a patch of the crown behind the eyes being the last ^{part of the head} to shed its hair. Three adult females, taken August 29 and Sept 3 and 7, respectively, are in complete summer ~~plumage~~ pelage. In them the hair is short, harsh, and scanty. The ears are very short-haired, and lack the long fringes ^{and black edging seen on} of winter. The coloring is darker, and more strongly tinged with cinnamon-rufous, with much less of the grayish or

pale fulvous pointing to the hairs than in winter; and the rump has the same coloring as the back, instead of being pronouncedly grayer.

Two specimens, taken Oct. 22 and 23, have almost changed to the winter ~~coat~~ pelage, the rump patch alone retaining the summer coat.

Three November specimens are in perfect winter coat, and have the upper parts more mixed with black than in the spring specimens. The winter months are not represented in the collection at hand.

The young are colored very much like adults at the same season, but have the cinnamon rufous of the nose and outer surface of limbs very much paler, and the color generally grayer, the hair being rather short and stiff ^{if born later in summer (Aug. 27) it is} rigid. Curiously, young of early spring (No. 837) have the coat long & dense + soft like that of their parents, ^{These usually have a small white spot in the forehead, as adults sometimes do also.} at that season.

Sciurus carolinensis hypophæus. — I have before me now thirty-six skins, of which twelve belong to Frank X. Holzner. Several others have been sent to the American Museum (1889); and a naked young one is also before me that I have not counted. These 37 skins were taken from July 13 to Nov. 13, as follows.

July (14), Aug. (6), Sept. (3), Oct. (6), Nov. (8)

An old female (No. 1278), killed July 13, ^{containing} two fortresses still retains a considerable trace of the winter pelage. The remaining summer specimens are all, practically, in full summer coat. At this season (summer) the coloring of the upper surface ^{of the body} is ^{uniform and} a pretty even admixture of black and grayish, the latter usually more or less strongly tinged with tawny ochraceous, producing a pepper-and-salt effect when viewed at a little distance. The ears are ^{very} short-haired, and do not appear distinctly bicolored, as in winter. The forehead + outer surface of limbs ~~and feet~~ are a good deal mixed with tawny ochraceous; but there is no distinct ferruginous side stripe, such as is seen in autumn, except in young of the year. The upper surface of the feet ~~the upper~~ feet are tawny ochraceous, sometimes mixed with gray, or with the toes wholly gray. The tails are 'stringy', with considerable diminution of white or gray at this season. The hair of the tail is shed in August and early September, becoming full and bushy by about the first of November. The coloring of the under ~~surface~~ ^{parts} of the body is quite

irregular. About 25 per cent. of the specimens before me are pure white below, and this without regard to sex age or season. There is but one ~~black~~ melano, taken in November. This specimen is pure black above, with traces of gray in the tail and of tawny ochraceous on the sides, with the underparts ~~nearly uniform~~ rusty gray, mixed with black hairs in the median line. In the remaining specimens having the underparts colored, several are nearly all ochraceous below, others nearly all white, while the majority are variously intermediate. The ~~shade~~ of color varies from pale buffy yellow to chestnut, and is often mixed with black on the gular region and genitals or about the mammae. ~~of~~ In those in which it is ~~most faint~~, least marked, there is only a faint yellowish wash on the gular patch, leaving the throat white, except the point of the chin. Where the coloring is stronger, the whole throat and chest, and the hollow of the thigh, ^{of inguinal region} are ~~strongly~~ deeply tinged with tawny ochraceous, with a median stripe connecting these areas, leaving a white area on either side of the median line of the abdomen, ~~of which is not~~ ~~wholly~~ traces are seen in even the most highly colored individuals, in which the gular patch + inner aspect of the thigh are intensified to chestnut or mixed with black or gray.

Fall & Winter Pelage.— The change to the fall pelage begins with the molting of the caudal hair in August. In September there are signs of a general molt on the fore limbs and along the sides, the upper surface gradually acquiring a heavier coating of more silky hairs. As the change progresses, ^{and} ~~the~~ ^{an} ~~ochraceous~~ ^{ochraceous} stripe appears on the side. In October, the distinctive pattern of the winter coloration begins to appear. Instead of the uniform ^{rusty} pepper and salt color of the upper surface in summer, a pronounced ~~ochraceous~~ ^{ochraceous} vertebral stripe ~~appears~~ is seen, and the rest of the upper parts change to a fine cinereous ash, mixed with black, extending to the outer surface of the limbs which before were decidedly rusty or ochraceous. Towards the end of October the ears, which before were rusty grayish develop a heavy coat of hair, usually having the anterior border and tip rusty, with the base and posterior edge pure white, though the ear is sometimes pruinose ochraceous throughout.

It will be seen from the above description that the seasonal changes in the pelage of the Gray Squirrel are

closely parallel to those described by Dr. J. A. Allen in the Red Squirrel (*Sciurus hudsonius*).

Young.— The season of parturition doubtless varies considerably. A female shot at Crowe, Olustee Co., Minnesota, July 13, 1891, contained two foetuses. A nest found ~~at same place~~ ^{in Houston Co.,} on Root River, Minnesota, July 18, 1891, contained 3 small naked young ones, apparently just born; but several young ^{of the year} ~~ones~~ were seen running in the trees, one of which is considerably larger than a Red Squirrel or Chickaree, at the same season; and a young one found in its nest with its mother, at Camp Douglas, Wisconsin, on July 16th, was the size of a Chickaree. At this age they resemble adults at the same season in coloration, except that the tail is ^{short haired and} 'stringy', with long white tips to the hairs, and the sides have ~~more~~ quite distinct ochraceous stripes. The coat is short and rather coarse. A specimen taken at Camp Douglas, Wisconsin, August 24, 1890 (No. 885) is considerably older, having a full, bushy tail, and longer, soft, woolly pelage. Some of the young are pure white below, and others colored, ~~resembling~~ ^{resembling} the mother, ^{in this respect,} in two cases where the latter was shot.

Sciurus hudsonius.— The material examined, at this time is 46 skins of which 9 belong to Frank X. Holzner, U. S. A. Many others, from this locality, were sent to Am. Mus. in 1889, which are not here considered. Seasons represented: March (1), April (3), June (1), July (3), August (14), September (17), October (5), November (2) = 46.

My spring material is too scanty to show all the stages of the spring molt. A female taken March 29, is ^{still} in perfect winter pelage. ~~For~~ A pair taken April 1, show the first indications of the approaching change, the feet alone having acquired, ^{in part,} the russet coloring of summer. In a female taken 3 days later (April 4), the molt has been completed on the feet, and commenced about the nose, the residue being in winter pelage. No other specimens were taken until June 9, when a murring female (No. 1266), in which the molt had, presumably, been delayed by lactation, appears in patchy pelage, about evenly divided between that of summer and winter, ^{insert (see * over page.)} two specimens males, taken July 12, are in complete summer coat. The black stripe, extending along the side and separating the ~~in this species,~~

usually is not strongly marked in July and August - specimens, ~~except in~~ ^{at least} unless in young of the year; but, like the ochraceous side-stripe of the Gray Squirrel, it seems to become intensified in the autumn, September specimens exhibiting it of the greatest intensity, while in those of October it becomes subdued and obsolete, disappearing entirely in most ~~winter~~ specimens in winter pelage.

There appears to be a very considerable range of purely individual variation in the coloring of this species.

A few ^{examples} individuals, taken in July, August, and September, are peculiar in having a distinctly grayish coloration, with ^{very} little ~~or none~~ of the usual reddish color; ~~and~~ while others, taken at the same seasons, have a peculiarly brilliant rufous coloring. These differences are independent of age; but ~~season~~ are probably affected more by season, ^{faded} summer specimens averaging paler and grayer, while those in fall pelage, average redder, with blacker side-stripes - both probably due to a partial ~~gradual~~ fall molt, with renewal and increase ~~off~~ in the amount of hairiness, preliminary to the striking change to the winter ^{coloration} ~~pelage~~ in which a reversed pattern appears, the redness of the sides and extremities changing to gray, ~~at~~ coincidentally with the assumption of a rufous vertebral stripe continuous with that of the tail.

This transformation begins late in September, and ^{male taken at Fort Snelling, Minnesota, November 27, and at a} has been completed in a pair taken November 27, ^{at} on the Roseau River, at the point d'Orme, on the line between Minnesota and Manitoba. ^{insert (see next page)} A male, taken at Fort Snelling, Minnesota, Oct. 30, is in winter ~~coat~~ dress, except as to the feet and forearms, ^{and nose, the forearms & feet} which are still rufous colored.

Note. - Since writing the above, 17 additional skins, that had been overlooked, ^{and additions} adding have been found. Placing them with the others, the following changes should be made: Material examined 63 skins, as follows: December (1), March (1), April (3), June (1), July (10), August (20), September (17), October (7), November (3) = 63.

*. Insert over page: A paired pair, taken at Cronco, Alameda Co., Minn., July 13, 1891, the male as acquired the summer coat throughout; but his mate ~~has~~ retains the winter coat on the hinder part of the back and on the rump. Her new coat is quite dull and grayish, as it commonly is in adults

killed in July and August. Another female, taken on Root River, near Houston, Minnesota, July 18, whose milk has dried up, the summer molt has not yet ~~extended~~ ^{reached the} included the hind limbs, ^{except the} though the rump has the summer coating.

+ Two specimens taken at Ft. Snelling, Oct 22 + 23 respectively, are in winter dress, with the exception of the muzzle and a narrow strip along the anterior margin of the thigh, which still has the rufous coloring.

(See the additional note on page 218.)

Spermophilus tridecemlineatus. - Material examined (not including the series sent to Am. Museum in 1889) 27 skins, as follows: April (9), May (5), June (1), July (1), August (1), October (10). Nine specimens taken from April 14 to 19 (7 ♂♂ + 2 ♀♀),

are still in winter coat, none showing any indications of the spring molt, except in one or two that are ^{just} commencing to shed at the nose. These specimens are readily distinguishable from those that have recently put on the winter dress (10 specimens, taken in October), prior to betaking themselves to their burrows for the winter, by their paler coloring. In autumn the under parts, especially anteriorly, are a fine buff, and the dark stripes above of a rich deep brown color; but by spring the underparts have faded to pale creamy buff and the striping above is of a much lighter shade of brown. In spring the genitals are white, in sharp contrast with the color of surrounding parts, whereas, in autumn, they are concolor with the rest of the under surface. The spring molt is accomplished during May. The underparts receive a

^{spring} coating of coarse yellowish hair, while the shedding process takes place more slowly above, from the nose backward. The ^{dark} dorsal stripes are at first much deeper hued than the coat just changed, but exposure soon fades it. A young male, about one-third grown, ^{taken June 18,} closely resembles its mother, but is somewhat brighter colored.

An older specimen, taken August 24, is more ~~ochraceous~~ yellowish - almost ochraceous - especially on the fore limbs, sides of head and neck and supraorbital stripe. The time of the fall molt is not shown in my series, ^{which} in there are no September specimens + but one that was captured in August. The ten Oct. specimens are all in fresh winter pelage.

Spermophilus franklini. - Present material six skins. April (3), May 3^d (1), June (1 quite young), Sept. 2^d (1). The variation in the five adults is extremely slight; but the young, ^{which is} smaller than S. franklini a chipmunk (S. g. ginsens), a male taken June 17, 1890 (No. 842) is much more heavily colored than adults, ^{though} the colors are similar. The black vermiculation is very coarse and heavy, there is a good deal more black in the gray of head; and the ochraceous ^{tinge} of the back extends to the under surface and hind feet.

Putorius longicauda. - There are 5 skins in white winter pelage before me. Four are males, practically of one size and relative length of tail. The single female (No. 1202) is very much smaller, as regards bulk and weight, but has a tail relatively as long as the males. This one may be P. eremicus, but it is probably longicauda, the small size being purely sexual. The males are closely similar. They are numbers 1138, 1195 and 1378 of my collection, and No. 85 of Holzner's Coll. All of mine were sent to Am. Mus.

Spermophilus tridecemlineatus. - Two additional Sept. specimens loaned me by Holzner, are pretty nearly in fall pelage. One of them is marked as young. They were killed Sept. 10 + 11, 1891.

Geomys bursarius. Thirty-two (32) skins, including 4 of Holzner's as follows: April (3), May (3), June (4), August (5), October (16), November (1); taken April 15 to Nov. 25. These animals ~~emerge~~ ^{from} become active early in April. They are then in winter pelage, but are of a lighter shade of drab-brown than when they retire for the winter - in October ^{or} November, when the color above is almost seal brown, with a distinctly blackish vertebral area, which much less apparent in spring. One of the three April specimens (April 15) has shed the winter coat on the head and neck, the others being still in complete winter dress. The change to summer pelage ~~takes~~ ^{is} takes place in May, proceeding regularly backward from head to tail, becoming complete late in the month or in early June ^{when}. The color is lighter and browner, quite close to Mars brown, with ~~little~~ but slight indications of a darker vertebral area. This pelage fades to a still lighter shade during the summer, until, in October, the ~~the~~ darker lining of winter is assumed, the renewal taking place from before backward, as in spring.

The young are at first grayish drab-gray, acquiring the adult pelage with the fall molt, which occurs in August or September, according to ~~the~~ their age at the time. The pelage acquires its richest coloring late in October, when it becomes very full and soft. There is considerable individual variation in the amount of white, when present, about the nose, cheek pouches and forearms, reaching its extreme amount, in the present series, in No. 1912. (See original entries of specimen, p. for description.)

spadix Bangs.

Putorius longicauda. - A female, taken at Ft. Snelling, Minnesota, Dec. 18, 1891, by Holzner (No. 84 his coll.) agrees with my female (No. 1202) in size. I have copied his measurements of this and other weasels on page 239 of my journal.

Lutreola vison. - An old male (No. 1385) taken at Fort Snelling, Minn., Dec. 6, 1891, is very large. It has the end of jaw, a small spot in the median line below opposite angles of jaw, a larger spot between the fore limbs, and a median streak on the inguinal region, pure white. The rest of the animal is Prout's brown, slightly paler below, ^{becoming blackish towards the end of the tail.} with the long outer coat so thin as permit the drab underfur to be seen through it.

An old female (No. 1280, taken on Pine Creek, Fillmore County, Minnesota, July 16, 1891) is in full summer pelage. There is but a trace of white on the end of the lower jaw. The color is nearly uniform. Dardyle brown, slightly paler below, and ~~somewhat~~ darker towards the extremity of the tail. Pelage harsh & coarse.

A young male of the year, the progeny of the above described female, and taken with it, is considerably larger than its parent, ~~affording~~ though still retaining many of the milk-teeth, which are being displaced by the permanent set anteriorly. The two specimens afford a good illustration of the ~~sex~~ difference. Sexual discrepancy in size in this species, which has a close parallel in the allied genera of Mustelidae. The coloring of the young is strikingly different from that of adults. ^{being very much darker} This specimen is blackish brown (near seal brown) above, slightly paler below, with the lower jaw and a ~~small~~ spot in the middle line ^{behind the fore limbs} ^{white}.

and young are almost identical, except that the latter, being in fresh coat, is somewhat brighter, the sides being a trifle more ochraceous yellow and the anterior portion of back with a more distinct sprinkling of tawny hairs. The middle pair of light stripes and the limbs are almost as gray as those of its mother. The tail is just appreciably deeper fulvous or tawny-olive.

Comparison of thirty-eight (38) specimens of ^{most of the young} ~~about evenly divided between the months of July and August~~ of the year, ^{early} ~~the following~~ change of pelage is seen to take place: The July specimens, all agree pretty closely with the young specimen just described as practically in the dress of adults in spring. Several that were taken late in the month have touches of brighter coloring as if by gradual renewal of individual hairs, the new ones pertaining to the summer coat; ^{and two} ~~two~~ females, taken July 26, which are perhaps young of the preceding year though neither had borne young, are regularly molting, having acquired the summer coat on the sides and anterior half of body, which parts are undistinguishable from those ~~parts~~ of adults. During August the young acquire a coloring closely similar to that of adults in summer, though less intense, with a less dusky tail. The molt seems to take place very gradually, ~~by~~ ^{and} often producing a patchy or spotted effect, though in a general way proceeding from before backward. In September it is difficult to ^{distinguish} ~~tell~~ the young of the same season from adults, except by a critical examination of the skull and teeth. During July and August the grayness of the young, especially as to the hindparts and central pair of light stripes, and the paler, stringier tail serve to distinguish the young from adults at the same season.

Putorius ricognani Bonap. - With the same 5 specimens referred to in a foot-note, in my article in Bull. Am. Mus. Nat. Hist. vol. III, p. 235, I should add that the tail is pointed. The color is between chocolate and Bonaparte's brown. An adult male, loaned me by Mr. Frank X. Holzner, taken at Mansfield (near Old Fort Repley), Minnesota, Nov. 17, 1891 is in white winter pelage, ~~but~~ with hardly any sulphury tinge, but showing traces of the brown summer coat along the whole upper surface of the body from the nose to the base of the tail. For measurements taken in the flesh by Holzner, see page 239 of current journal. The amount of black at the extremity of the tail varies greatly, being more than twice as much as some as in others.

Blarina brevicauda. - Material 34 skins from Fort Snelling, Minn. ^{and vicinity}, of which 11 were loaned me by Frank X. Holzner. 12 were taken in September, 9 in October, and 13 in November. Several specimens taken early in September are still in summer coat.

Summer Pelage (based on No. 3, Holzner Coll.), ♀ ad., Hamilton Station, Dakota Co., Minn., Sept. 8, 1891). - Pelage short and much coarser & harsher than in winter; dull, without gloss; above slate gray tinged with brown; below gray.

Winter Pelage (based on No. 1189, Meams Coll.), ♀ ad., Ft. Snelling, Minn., Nov. 30, 1890). - Above dark slate-gray, fading to pale gray below, everywhere with a fine silvery gloss. Pelage long, exceedingly dense and soft.

personatus,
Sorex cooperi. Material, 26 skins, of which 5 were collected by F. X. Holzner, 6 were collected in September, 10¹⁰ in October, 9 in November, and 1 in April. [See beyond.]

Vesperimus americanus. - Material, 82 skins, mostly from Ft. Snelling, Minnesota & vicinity (about 20 from Camp Douglas, Wisconsin). Of this number 15 were loaned me by Mr. Frank X. Holzner.

Seasonal Variation. - The young and adults of this species have a totally different coloration, that of the young being mouse gray, ^{about} slightly darker in the median line. Though gray is the distinctive coloring of the young of this species, there are several nursing females in the present series that are still mostly in the gray pelage of the young, though the teeth show considerable wear on the fimbriae; and some late fall specimens, whose teeth bear no evidence of senility, ^{have} ~~are in~~ an intermediate coloring between the gray of the young pelage and the tawny-ochraceous of the adults at that season - a coloring resembling that of adults in summer. It seems probable that these latter are young individuals that acquired their first change of coat. Changed their juvenile coat of gray for one similar to ^{to the summer coat} ~~that~~ of adults late in summer, retaining it late in autumn after adults had molted into the ~~adult~~ dress of winter. Excluding all specimens showing any portion of the gray pelage, there remain 38 specimens in adult pelage for comparison as to seasonal changes. These speci-

mens are pretty evenly distributed over ~~the~~ all but the ~~three~~ ~~winter~~ months from May to November, inclusive, the winter months and March and April being unrepresented. ~~These~~ This material fully illustrates the two distinct ^{seasonal} colorings ^{also} of this species, ~~those~~ of summer and winter respectively, and ^{includes} many samples of the transition from winter to summer, and ^{from} summer to winter dress. In summer, the pelage is broccol brown above, becoming darker (sepia) brown in the median vertebral region, everywhere finely lined with black hairs, the short coat also ^{showing} much of the gray underfur to be seen through the interstices of the outer coating. The ears and tail are scantily clothed with dark hairs, the former with a faint hoariness to the extreme edge. The underparts, ~~instead~~ are white, showing a good deal of the gray underfur. In winter, the pelage is tawny-ochraceous, varying to ~~rusty~~ russet or Mars brown, darker in the median line, everywhere very finely lined with black hairs. The ears and tail, ~~are like~~ ^{in conformity with} the rest of the body, are more densely haired, ^{than in summer} the former having considerable white on their convex surfaces, and more hoary edges, the latter being more sharply bicolored. The underparts are so densely coated with ^{fine} white hairs as to entirely conceal the gray underfur.

The change to winter pelage takes place in October, seven specimens taken in September showing no trace of it; but a very old male (No. 29 Holzner Coll.), taken September 17, is apparently in full winter coat, ~~with~~ ^{being} a coloring remarkable for its pure burnt amber, this unique coloring being perhaps due to continuous wear through the summer, senile debility having prevented a spring molt. A specimen taken October 29 is in winter dress with the exception of the rump and outer side of hind limbs which are still in summer coat. Of the fourteen specimens ~~to~~ taken in November, all but two (taken on the 1st and 12th respectively) are in complete winter dress. These two, together with several taken late in October, are supposed to be immature, the individuals that changed ~~to~~ from the gray ~~dress~~ juvenile coat to one quite similar to that of adults in summer late in the season, as has been ^{before} remarked. ^{A male} ~~Specimen~~ taken as late in ^{the} spring as May 26 ~~is~~ still in winter dress, ^{though} ~~very~~ ^{much} worn, and faded to cinnamon-color on the sides, ^{and} ~~the~~ ^{on} June 3, has only molted on the occiput and nape - the regions where the gray coat of youth is last to disappear.

A male (No. 1261 Mearns Coll.), taken June 6, has assumed the summer ~~living~~ dress on the ^{sides and} anterior ~~portion~~ half of the body, leaving the posterior half, except along the sides, of the ~~faded~~ (cinnamon) color of the faded winter coat. Of nine adults taken in July and August, but two (both males) ^{retain} ~~show~~ any traces of the winter pelage, those two having been captured July 25 and 30, respectively.

Description of Young. - There are 44 specimens retaining, to some extent, the gray coat of the young. Of this number 16 are ^{mouse} gray or all of the upper surface, 5 show the russet of the adult coat along the sides, and 23 have the adult coloring on at least half of the upper surface. As the breeding season extends ^{at least} from May to September, specimens of widely varying ages and coloring are taken at the same time. Two ~~more~~ ^{as late as} were taken that were more than half-grown by May 26, and young but a few days old, ~~were taken~~ ^{as late as} Sept. 19. The latest capture ~~is~~ of specimens in all gray coat was November 30, and even these had some admixture of ^{yellowish} brown hairs, as if changing by a gradual instead of general molt. ~~The young~~ ^{by general molt,} Specimens ~~that~~ changing to the adult coloring, ^{by general molt,} were taken from June 6 to November 17, a russet band first appearing along the sides, between the gray of the upper, and the white of lower surface. This incision in breadth until ^{all of} the whole upper surface is involved. The new coat extends forwards along the sides of the head to the nose, and backwards to cover the hind limbs, encroaching rapidly on the space at the middle of the back, where ~~the~~ ^{two} a union of the ^{two} sides first ^{occurs} ~~takes place~~, thus enclosing a gray spot on the rump, and another occupying the top of the head and neck, the latter being the last to receive the new coating of the gray coat to disappear. The youngest specimen before ^{me} is about an inch in length. It is marked below, and without underfur above, where the color is mouse gray. The inspection of the 28 specimens that are changing from the gray to the adult coat leads me to the conclusion that those borne ~~late~~ ^{early} in ^{the} season change, during the hot weather, to the summer dress of their parents, which, if assumed late in summer, is worn late in autumn, after adults have gained their winter dress; but if borne late in the season, and are not prepared for their first ^{night} before the onset of cold weather, then they change ^{directly} to the dress of winter adults.

Vesperinus americanus. - The following specimens may safely be included in a table of measurements of adults: Nos. 1173, 1179, 1180, 1181, 1182, 1317, 1254, 1326, 1295, 1318, 903, 1307, 1297, 1327, 1296 (marked juv.), 1122, 1174, 1183, 1158, 1159, 1121, 1117, 1102, 1161, 1251, 1071, 1111, 1131, 1054, 1042.

Vesperinus michiganensis. - Material, 54 skins of which ^{all were captured on the military reservation at Ft. Snelling} one was loaned me by Mr. Frank X. Holzner. Seasons represented: October (4) and November (13). It is unfortunate that this large, but none too extensive series should not be supplemented by specimens taken at other seasons of the year, especially in spring and early summer; for, without such additional material, ^{for comparison} I must confess myself incapable of fully understanding all of the phases presented by the present series, ~~however~~ which, however, furnishes examples of the summer and winter dress, ^{the} young ^{at} various ages, and the fall molt. Before describing these several conditions, it should be remarked that all of these specimens were taken ^{one locality} in a tract of wild land, where they were not directly affected by civilization, and where all were subjected to the same influences.

Adult in Summer Pelage. - Two of the most highly colored (i.e. brownest) specimens (Nos. 1039 and 1060, Means Coll., both females, taken October 14th and 20th, respectively) have the upper surface Prout's brown, with a ^{broad} dusky band extending from the crown, and tapering to ^{a point at} the base of the tail. The underparts, except the heel which is blackish, are grayish white, color, produced by ~~the~~ a commingling of the gray underneath and ~~white~~ ^{the} outer coating of longer white hairs. One specimen (No. 1060) is molting below, the coat being ^{dusky} solidly white anteriorly, and grayish & scanty posteriorly. There is no indication of molting on the upper surface. In other adults, taken at the same season, the coloring of the sides is paler from excessive fading, approaching ecru-drab (No. 1048). Still others are grayish from ^{admixture of gray hairs in the outer coat or} commingling of the external & under coats, or darker from admixture of black hairs, the latter being such as are nearly black in the vertebral region (Nos. 978 and 992).

Adult in Winter Pelage (based on No. 1141 Means Coll., ad.,

November 22, 1890). - Pelage much denser and longer than in summer. Sides of head (including base of ears all round) and body, wood brown, more ochrey on sides of head below eye. Dorsal area, dusky, from ~~above~~ the copious admixture of black hairs, ^{this band} ending in a point at either extremity, stopping midway between the eyes anteriorly, and ^{at} the base of the tail posteriorly. Underparts pure white, ^{concealing} gray underfur. Hind-foot dusky at the heel. Ears clothed with short black hairs, with faint hoary edging and long black fringes around the base. Whiskers mixed black and white. Tail sharply bicolored, brownish black above and pure white below. A narrow blackish area encircles the eye; and there is a black spot on either side of the muzzle, where the whiskers are inserted.

Adults ~~do~~ ^{fall} molt ~~late~~ ^{place} during October, in the same manner as Vesperinus americanus, the contrast between ~~the~~ ^{the} summer and winter coats being much less than in that species. Several young of the season, taken during the last ^{few days} of November, have acquired the winter pelage of adults, except ~~on~~ the top of the head and neck which are still in the first pelage (No. 1153, etc.)

Description of Young. The young in first pelage are slate gray in the dorsal band, ~~and~~ pure gray along the sides, and white below. There are ^{but} seven in this condition, taken October 6th to 24th. At an early age, when less than two-thirds grown, they become mixed with wood-brown along the sides, as if by ^{gradual} molt ~~and~~ of ^{individual} gray hairs ~~that~~ that are replaced by brown ^{ones}. The change to the adult dress of winter is not finished, in some ^{young} individuals, by the end of November, although others have nearly completed the molt in October. The following specimens may be included in a table of measurements, as adults: 1048, 1136, 1141, 978, 1039, 992, 1060, 1063, 1001, 987, 1031, 1033, 986, 1087, 1066, 1089, 1188, 1157, 1152, 1146, 1187, 1178.

Zapus hudsonius. - Material, 3 skins from Ft. Snelling, Minnesota and vicinity, two of which were collected by Mr. Frank X. Holzner. Adult Female in Summer Pelage (No. 26 Holzner Coll., Minnesota River at Hamilton, Minn., Sept. 26, 1891). - On the upper surface the hair is rather long, but coarse and rigid; but it is quite short

below, though the skin is well covered except around the mammae which are bare. ~~Upperparts~~ buff, sparsely lined with stiff black hairs on the sides of head and body; dorsal region, from nose to root of tail ~~thickly covered with black hairs~~ ^{thickly covered with black hairs, which are the hairs} ~~merely annulated and pointed tips, though from gray at base.~~ ^{more numerous than the buff.} Underparts pure white, producing a tricolor pattern - white below, blackish above, and yellowish on the sides. Tail ~~bicolor~~ ^{bicolor}, purplish black above, and white below. Hind limbs slightly mixed with gray externally. Hind feet, naked below, sparsely ^{from tip of nose to eye, 1.2; to occiput, 2.6; fore limb 2.3.5; hind limb, 5.1; tail vertebrae, 1.38; manus, 1.1; pes, 3.1.5} clothed with white hairs above. Mammae white. Measurements. - ^{taken Sept. 17th and October 3d, respectively,}

The remaining two specimens are young of the year, and differ from the adult only in having the upperparts somewhat grayish, and the underparts tinged with buff.

Eutamias gapperi. - Material, 3 skins from Ft. Snelling, Minn., and vicinity, two of them collected by Mr. Frank X. Holzner. Adult ~~Female~~ in Summer Pelage (No 53, ♀ ad. (mammae), Holzner Coll., Minnesota River at Hatfield, Sept. 25, 1891). Upper surface with a broad band of chestnut extending from the crown to rump; front of head and sides of head and body, mixed yellowish brown and drab, much grizzled. Fur slate color at base above, grayish below. Under surface grayish white. Feet grayish white. Ears ^{rather especially scantily} clothed with short hairs of gray, yellowish brown and castaneous. Tail brownish black above, ~~grayish~~ ^{grayish} whitish below. Whiskers colorless.

Two young of the year, taken, respectively, September 20 and October 25, are, ^{similar to the adult, but} grayer, less yellowish on the sides. The younger specimen is but half-grown, and is in woolly coat, showing much of the underfur through the outer coating, being much more gray than white below.

Mus musculus. Material, 19 skins, mostly adults, of which 9 were collected by Frank X. Holzner. Seasons represented, August (2), October (3), and November (4).

Summer Pelage (based on Nos. 1351, ♂ ad, 1352, ♀ ad, and 1353 ♀ juv, mammals of our family, all captured on August 22nd at Fort Snelling, Minnesota). The coloration is almost identical in these three specimens. Above drab, slightly mixed with blackish, paler on the sides, and drab-gray below, all of the hairs being grayish at base. Tail ^{light} grayish brown above,

paler below. Ears pale purplish gray.

Winter Pelage (based on No. 1156, ♂ ad., Means Coll., Fort Snelling, Minn., November 28, 1891). - Color much darker. Above dusky from intermixture of black, sides grizzled drab, underparts drab-gray, everywhere ~~marked~~ ^{marked} with faint darker annulations that are obsolete in summer. Scrotum ^{pale} salmon ~~pink~~ buff. Several fall specimens, in fresh winter coat, are tinged ~~below~~ with salmon-buff on all of the underparts, but the color fades considerably in cabinet specimens.

There is but one molting specimen (taken August 22, 1891), in which the change to winter pelage is nearly half completed. In those residing within doors the molting season is probably irregular.

Sorex cooperi (Continued from page 223). Twelve are in the ~~summer~~ ^{winter} coat, 11 are in winter coat of full dense, silvery hair, and 1 unusually dark specimen (No. 1230) was taken April 30.

Summer Pelage. - ^{tinge} Above sepia with a suggestion of burnt umber in it. Below light drab-gray; ^{pelage} ~~new~~ slate-gray at base. ^{but, the pelage is short and coarse at this season, and with little lustre.} Winter Pelage. - Above decidedly grayish, ^{brown} with a silvery luster. Below, ^{light, silvery} gray. Tail concolor with the body, except the ^{terminal} penial which is dark sepia. Feet grayish white.

Winter Pelage. - Above decidedly grayish brown, paler than in summer, with a silvery sheen, and a tinge of drab-gray along the sides; below light, silvery gray, and lustrous. Tail concolor with the body, ^{except} the terminal pencil, which is ^{dark} sepia. Feet grayish white. The pelage, at this season, has an appearance of fine annulations ^{which is almost or quite lacking in summer.} Spring Pelage. - The single spring specimen (No. 1230, Means Collection, April 30) differs from all the others in being darker, ^{this} almost blackish on the median dorsal region, sepia brown on the sides, and gray tinged with cerise-drab on the underparts.

Two specimens taken on the Roseau River, near the boundary between Minnesota and Manitoba, ^{in November, 1891,} have a different appearance from any of those taken at Ft. Snelling. They are paler, more silvery, longer-furred, with a strong tinge of cerise-drab along the sides and ^{drab} ~~appearing as~~ ^{annulations} to the fur of the upper surface. The tail is a trifle shorter, and paler, more yellowish brown.

Arvicola austerus. Material ~~37~~ ³⁹ skins, ^{three} of which was collected by Mr. Frank X. Holzner. All from Fort Snelling, Minnesota. Seasons represented, September (3), October (26), and November (10).

Summer Pelage (based on No. 1021 Means Coll., Fed., October 15, 1890). Above grizzled yellowish brown and black, ^{the colors intimately mixed} sides with more gray, and less black; underparts slate-gray, with ^{very} faint ^{brownish} yellowish white tips to many of the hairs; tail bicolored, blackish above, brownish white ~~on sides and below~~. ~~This specimen~~

Two specimens (Nos. 11 and 45, Holzner Coll.) taken September 9th and 23d respectively, are larger than any others in the collection, with larger skulls, and, apparently larger ears. The smallest presents the following dimensions, as taken by the collector: Length, 145; tail vertebrae, 34; nose to occiput, 28.5; nose to eye, ¹² ~~14~~; nose to ear, 21; height of ear, 8 mm. These two specimens are almost identical ~~with~~ in coloration with the above, though a little darker slate-color below, with the faint brownish tips to the hairs more noticeable. These two were collected in the Minnesota River bottom, in a low situation, where ^{I have} ~~never~~ ^{found} any of this subgenus, though *Arvicola riparia* is abundant there.

* This specimen is just commencing to molt, about the front of the head, but has not shed the summer hair on the under surface.

Winter Pelage. - Ten specimens taken during the last week of November are in winter dress, and are not easily distinguishable from summer specimens, though the coat is ^{considerably} longer, and the underparts have hoary or pale cinnamon tips to the hairs. Most of the specimens before me were taken during October, the majority of them being immature. Nearly all are in winter dress. An adult female (No. 999 Means Coll., taken October 16th, has the underparts of mixed summer and winter ^{pelage} coats, though there are no signs of molting about the head. When in fresh pelage, in autumn, the ^{sides and} underparts, instead of being hoary or silvery white, are usually more or less washed with fawn-color, pale cinnamon, or ecru drab, and this color ^{sometimes} ~~often~~ appears quite distinctly at the tips of the hairs of the upper surface.

A Young Specimen (No. 1059, 7 juv., October 19, 1890 (quite young) is still in short, woolly coat of drab gray above and hoary white below. Another young female, ^(No. 1005, October 10, 1890) but little older, ~~is~~

~~extremely~~ has the pelage extremely long and dense, and the color almost black above; these two ~~present~~ ^{present} extremes of light and dark phase coloration.

Arvicola riparia. - Material, 23 skins, all from Ft. Snelling, and vicinity except one from Kittson Co., Minn. Seven were collected by Frank X. Holzner. ^{Thirteen} ~~Seven~~ are adult or nearly adult, the remaining 10 being ~~is~~ young of the season at various ages. ~~Of the eight 11 adults, eight are in summer, and three in winter pelage.~~

Adult in Summer. - There are ^{nine} ~~six~~ adult specimens in summer pelage, taken from June 5th to November 28, which vary but little in size and coloration among themselves, and closely resemble five adults, taken on the Atlantic coast, in summer, ~~specimens~~, though apparently a trifle smaller though lacking the brown tinge below seen in some of the latter. Like most mammals of this region the coloring is grayer, with less brown in it, than in ~~the~~ eastern specimens. The color above is vandyke brown very finely mixed with black, changing to bistre on sides, hoary grayish below; tail brownish black above, grayish white below. ~~These~~ Summer specimens are ^{slate-gray} ~~pale~~ below, owing to the wearing off of the hoary tips of the hairs; and the upper surface becomes darker with wear because of the blackish slate-color of the basal portion of the hairs. Four adults, taken in October show no ^{signs} ~~trace~~ of the ^{approach} ~~fall~~ molt, but a fifth, killed ~~on~~ October 24, is in winter pelage throughout, as is an adult male taken November 30; but an ^{old female} ~~specimen~~, taken November 28, is still in full summer dress [note the ears of late breeding + nursing], as is an old male, taken ^{as early as} June 5.

Adult in Winter. Four adults, taken in October (1), November (2), and January (1), have the pelage extraordinarily long and dense, and of a much lighter color than in summer, the general effect of which is drab, there being a mixture of grayish, blackish, and yellowish brown; under surface grayish white, sometimes ^{very} faintly washed with ecru drab. Young of the Year. - The young differ widely according as they were borne early or late in the season. Those borne in summer are ^{usually} dark slate color, sprinkled with faint touches of yellowish brown above, grayish below, and the coat is comparatively thin and short; but those borne late in autumn are clothed with very long, yellowish brownish gray pelage, resembling adults in winter.

Measurements of Skulls of *Felis concolor* from

Arizona (4 adult males.)

Number	
Distance from foramen magnum to posterior margin of meisor teeth	
" " posterior margin of occipital condyle to front of premaxillary bone ^{meisor teeth}	
" " occipital crest to front of premaxillary bone ^{nasals} (occipito-nasal length.)	
Greatest zygomatic breadth	
Distance between tips of postorbital processes	
Greatest intermastoid breadth	
" diameter of orbital orifice	
Least interorbital breadth	
Length of hamular pterygoid fossa, measured from base of hamular process to deepest point of palatal notch	
Distance from incisors to postpalatal notch	
From anterior ^(inferior) margin of foramen magnum to deepest point of postpalatal notch	
Length of auditory bullae	
Width of auditory bullae	
Least distance between auditory bullae	
Height of skull measured from edge of palatal notch to highest point of superciliary ridge	
Length of internasal suture	
Greatest breadth across both nasal bones	
Breadth of nasal opening, measured opposite tips of nasal bones	
Width of palatal notch	
Breadth across ^{upper} meisor series of teeth, measured on alveoli	
" " ^{upper} canines, measured on alveoli	
Distance between ^{upper} canines	
Distance between ^{upper} last molars	
Length of lateral series of teeth ^{of upper jaw} , measured on alveoli	
" " ^{upper} grassorial tooth " " "	
Height of upper canines above alveoli	
Length of mandible, measured from anterior extremity of condyle to front of symphysis	
Breadth of condyle	
Height of mandible, measured from angle to summit of coronoid process	
Breadth across canines	
Length of lateral series of teeth, measured on alveoli	
Length of ^{lower} molar series " " "	
Height of lower canine tooth above alveolar margin	

290 1325	289 1324	375 1330	373 1328
165.	176	170	177
179.	189	184	189
184.	195	190	187
139.	148	148	147
42.	78	76	72
86.	90	86	83
45.	45	43	48
42.5	46.	43	41.5
87	83.5	82.5	86.
76	83.	81	82
91.	95	90	97
40	45.	40	38
24	24.	23	20
23.	21.	21	23.5
73.	77.	76.	72.
49.	51.	55	53.
35	37.	33.5	36.
32	32.	29.5	30.5
25.5	23.5	26.5	23.5
20.	21.5	21.5	20.
55	56.	54	55.
30.	31.	30	30
65	63.	66	69
62	65.	64	64
21.6	22.	21.3	22.
32.	31.	30.	35.
140	147.	146.	148.
32	36.	33.	33.
72	72	74	72.
70	31	31	31
45	72	72	73.5
28	44	48	47.
28	27	28	27

List of Shells collected in Minnesota.

1. Anodonta corpul

Zimmerman Brothers
 Minnesota St. bet 5th & 6th.
 St Paul Minn.

Seed's No. 23 plates (For an iron developer
 on a sunny day, with smallest diaphragm & from
 3 seconds or less. Cap. & focus.

For ^{instantaneous} shutter use Seed's No. 26 (for animals in motion).
~~Waterbury~~ New Model View Camera & lens $6\frac{1}{2} \times 8\frac{1}{2}$
 \$20.00

For rapid exposures develop with hydroquinone. It
 should be mixed

Hydroquinone (powder 50¢ per 3) } mix it yourself
 Carbonate Potash
 Sulphide of Soda, etc.

Arthur Hope's Handbook of Photography (best book).
 For large orders send to Montgomery Ward & Co.,
 Chicago, Ill.

Use Iron developers for slow exposures

" Hydroquinone for rapid exposures.

[illegible]

No.		Shells Retained for my Collection :-	
H. S. Buckley	102	<u>Unio anodontoides</u> , Lea.	Aug. 29, 1891.
"	✓ 107	" <u>alatus</u> , Say.	Aug. 21, 1888.
"	✓ 105	" <u>plicatus</u> , Le Sueur.	May 27, 1891
"	✓ 106	" <u>luteolus</u> , Lam.	do
"	✓ ?	" <u>ventricosus</u> , Bar.	Sept. 8, 1891
"	✓	" <u>gracilis</u> , Barnes.	Sept 25, 1891.
"	✓ 101	<u>Anodonta corpulenta</u> , Couper.	Aug. 10, 1888 + Sept. 8, 1891
"	✓	" <u>umbrellis</u> , Say.	May 15, 1891.
"	✓ 118	<u>Unio ligamentinus</u> , Lam	Oct. , 1888.
"	✓ 116	" <u>asperumius</u> , Lea.	Oct., 1889.
"	✓	" <u>begonus</u> , Lea.	Sept. 15, 1891
"	✓	" <u>pustulosus</u> , Lea	
"	✓ 114	<u>Margaritana marginalis</u> , Say (dead 1 valve)	1888
Mis.	✓ 112	<u>Unio subovata</u> , Lea = <u>ventricosus</u> , Bar. Unionvair River at Camp Douglas, Wis. July 14, 1890.	
H. S. Buckley			
"	✓ 115	<u>Unio gibbosus</u> , Bar. (dead)	1888.
"	✓ 120	" <u>luteolus</u> , Lam.	Oct. 10, 1888.
"	✓ 119	<u>Anodonta edentula</u> , Say.	Oct. , 1888.
"	700	<u>Unio</u> sp. — ? (dead)	
✓		<u>Unio subovatus</u> , Lea <u>ventricosus</u> , Bar.	Sept. 8, 1891
✓		<u>Anodonta plana</u> , Lea.	Sept. 25, 1891
701		<u>Unio</u> — ?	Sept 15, 1891
✓		<u>Unio rectus</u> , Lam.	?
702		<u>Unio</u> sp. — ? (dead)	1891
704		<u>Unio</u> sp. — ? (heaviest shell under Gerlach's) (dead)	1891
✓		<u>Margaritana confragosa</u> , Say	1891
✓		<u>Unio gibbosus</u> , Bar (dead)	1891
✓		<u>Unio ellipsis</u> , Lea	1891
✓	705	<u>Anodonta</u> sp. — ? (2 fresh shells - red inside) Sept. 25, 1891 Similar to <u>U. gracilis</u>	
✓		<u>Unio zigzag</u> .	
✓		" <u>elegans</u> .	

(List checked
upon cards)

Shells sent to Mr. G. Kohr:-

No

Name.

✓	102	Unio anodonoides, Lea	Aug. 29, 1891.
✓	105	" plicatus, Le Sur.	May 27, 1891.
✓	106	" luteolus, Lam.	do
✓		" ventricosus, Bar.	Sept. 8, 1891
✓		" gracilis, Barnes,	Sept. 8, 1891
✓		" gracilis alatus, Say.	Sept. 25, 1891
✓	101	Anodonta confulta, Couper.	Sept. 8, 1891.
✓		" imbecillis, Say.	May 15, 1891
✓		Unio bigonus, Lea	Sept. 15, 1891
✓	119	Anodonta edentula, Say.	Oct., 1888
✓	118	Unio ligamentinus, Lam.	Oct. 12, 1888.
	700	Unio sp. ———?	(dead)
✓		Anodonta plana, Lea.	Sept. 25, 1891.
✓		Unio asperimus, Lea.	Oct., 1889
✓		Unio rectus, Lam.	1891
	702	Unio sp. ———?	(dead) 1891
✓		Margaritana confragosa, Say	1891.
✓		Unio fibbosus, Bar.	(dead) 1891
✓		" ellipsis, Lea	(living) 1891
	705	Anodonta sp. ———?	1891
✓		Unio zigzag	H. S. Sully
✓		" elegans	"

Arctomys monax. Material, 2^d skins, of adults which
belong to Frank X. Holzner, U.S.A.

1211 ♂ ad.	Ht. Snelling.	April 6, 1891	Am. Mus.
1213 ♀ imm.	"	April 11, 1891.	do
1215 ♂ ad.	"	April 14, 1891	do
1234 ♀ ad.	"	May 7, 1891	(Smithsonian)
1235 ♂ imm.	"	May 8, 1891	Am. Mus.
1239 ♀ imm.	"	May 9, 1891	do
1250 ♂ ad.	"	May 22, 1891	do
1249 ♂ ad.	"	May 22, 1891	(Smithsonian.)
1269 ♂ ad.	"	June 12, 1891	Am. Mus.
1273 ♂ ad.	"	June 16, 1891	do
1274 ♂ ad.	"	June 19, 1891	do
1342 ♀ juv.	Camp Douglas, Wis.	Aug. 8, 1891	do
54 ♂ ad.	near Ht. Snelling.	Sept. 23, 1891	F. X. Holzner
57 ♀ juv.	"	Sept. 26, 1891	F. X. Holzner.
1362 ♂ ad.	Ht. Snelling, Minn.	Sept. 5, 1891.	} Young, same litter Am. Museum all 3.
1256 ♀	"	June 4, 1891	
1258 ♂	"	"	
1259 ♂	"	"	
2	}	sent to Am. Mus in 1889	
1			
2			

1 ad. Ht. Snelling, Minn. (+ kept . Shot by Mrs. Means

The general effect of the Woodchuck's coloring is produced by a commingling of the ochraceous tips of the dense underfur with the grizzled and somewhat scaly external coat of coarser hair, giving a buffy gray color to the upper parts, except the crown, & upper surface of the feet, and the

tail, which a blackish or brownish black, fading to brown when the coat has been somewhat faded. The sides and outer surface of limbs have a richer coloring of chestnut-rufous, varying to russet in individuals, with the under surface of the body similar, but darkened by the exposure of blackish bases to the ~~coat~~ hairs, of the ~~under~~ the coat being scanty on the underparts. The point of the chin and muzzle are whitish, except ^{at} the ~~edge~~ border of the nasal pad. The underfur is blackish slate for the basal ^{half}, and ^{varies from} ochraceous to buff ~~for~~ on its terminal half. The long outer coat is black, broadly banded with buff in the middle, ~~and~~ with a narrow subapical zone of gray. In young animals the underfur is drab-gray instead of ochraceous; and, when very young, all of the hairs of the upper surface of the body are ^{very} broadly tipped with gray, ~~those~~ of the tail also having considerable admixture of grayish or pale cinnamon-rufous.

In this locality the Woodchuck makes its appearance, after the long winter, ~~after~~ ^{hibernating during} in March, when it appears rather emaciated ~~with~~ and still in ^{the} winter coat, which has become rather shaggy. The body, and especially the head, tail and extremities are apt to have sores or bare patches on them. In April, signs of a renewal of the coat begin to appear about the front of the ~~head~~ ^{where} head. Short blackish hairs first replacing ~~those of~~ ^{those of} the faded (now brown) crown-patch laterally and ~~anteriorly~~. The change progresses slowly during May and June, and is completed about the first of

July, in males, in females somewhat later, the molt being retarded by lactation. Contrary to the general rule in the Semideus the change of coat does ^{not} proceed regularly backward from the head to the tail, several specimens before me appearing with the middle third of the body still in ^{the} long ~~same~~ coat of winter, the anterior and posterior thirds being in the spring molt is slow and varies greatly with the individual. Short summer coat. The underparts, in addition to being very scantily haired, ^{in summer,} are darker, with grayish, rather than rufous tips to the hairs. The series before contains but three fall specimens, ^{and old male,} One, taken September 5, is just beginning to acquire the winter coat, while another adult male, killed September 25, ^{has} ^{the winter pelage} quite far advanced. It is probable that the winter coat is usually complete by November. ^{These} September specimens have the under fur inclining to grayish buff instead of ochraceous.

The young are ^{usually} born late in May or early in June.

Mammals sent to Smithsonian. Dec., 1891.

1234	<u>Arctomys</u> <u>monax</u>		
1249	"	"	
941	<u>Mus</u> ^{<u>decumanus</u>} <u>musculus</u>	Skin and skull,	
942	"	"	do
1068	"	"	do
1355	"	"	do
1367	"	"	Skin.
?	<u>Lepus</u> <u>sylvaticus</u>	♂ ad.	Skin + skull.
?	"	♀ ad.	do
	<u>Fiber</u> <u>zibethicus</u>	ad.	do
	<u>Sciurus</u> <u>carolinensis</u> <u>hypophorus</u>	♂ ad.	do
	"	"	♀ ad. do
	<u>Sciurus</u> <u>hudsonius</u>	♂ ad.	do
	"	♀ ad.	do
	<u>Spermophilus</u> <u>tridecemlineatus</u>	♂ ad.	do (were any sent?)
	"	♀ ad.	do "
1313	<u>Tamias</u> <u>striatus</u> <u>griseus</u>	Skin and skull.	
1312	"	"	do
1282	"	"	do
1224	"	"	do
1207	"	"	"
1270	"	"	Skin + skull
1265	"	"	Skin without skull
1279	"	"	Skin + skull.
1206	"	"	♂ ad.
1208	"	"	♂ ad. Skin + skull.
1272	"	"	♀ juv. do
1358	"	"	♂ do

Flora of the Hudson Highlands.

1. Hepatica triloba (Liver-leaf; Hepatica).
Beds of them were found on the north bank of Poplopen's Creek, near "Hell Hole", on April 8th. They were in full bloom. Colors chiefly white and pale pink. The leaves were rather more pointed than usual; sepals 8 to 10. The sun was shining bright as I lay in the leaves gathering a bouquet, and they gave a very decided perfume, which was perceptible after I brought them home. These were apparently a cross between the triloba and acutiloba. The latter, has not been found here in its integrity. Common kind is still blooming.

1.
Notes on Materia Medica
from Lectures delivered at the College
of Physicians and Surgeons, New
York City, during the winter
session of
1879-80.

Edgar. A. Mearns.
October 7, 1879.

Forms of administering drugs: -

Frictions. -

Spirits. -

Waxes. -

Fluid extracts. - Frictions concentrated
by evaporation, to which are added
glycerin.

46 preparations are known.

Oleoresins. -

6 preparations used.

Vinegars. 4

"

" Unimportant,

and do not keep.

Syrups. - A solution of sugar and
water. Used chiefly as a
flavoring agent. Do not keep.

Honey. - Powder dissolved in honey.
2 preparations: one is "honey of rose."

Glycerin. - There are 5 glycerates in
the pharmacopoeia.

Liment. - For external use.

Spring Wild-Flowers. 1882:—

1. Hepatica triloba. April 8
2. Epigaea repens, L. (Ground Laurel;
Trailing Arbutis; May-Flower (A.E.))
April 10th. Sunny places, only.
3. Amelanchier canadensis. (Shad-bush;
Service-berry). April 30th, full bloom.
4. Saxifraga virginensis, Michx.
(Early Saxifrage.) April 16
5. Everlasting. April 17.
6. Arabis levata (Rock Cress) April 21.
7. Dicentra cucullaria D.C. (Dutchman's
Breches.) April 20.
8. Caltha palustris, L. (Marsh Marigold)
April 20th.
9. Thalictrum anemonoides, Michx.
(Rue-Anemone.) April 21.
10. Erythronium Americanum, Smitt
(Yellow Adder's-tongue; Dog's-tooth
Violet.) April 21.
11. Stellaria media, Smith. (Common
Chickweed). April 10th.
12. (Creeping Charley.) April 16.

(1)

October 9

Iron.

1. Used to cure anaemia (a condition the opposite to plethora, and characterized by a diminution in the ratio of the red corpuscles).
2. Used as a styptic - to stop hemorrhage from bleeding vessels.

It discolors the teeth; hence should be taken through a quill, or glass tube, to the back of the mouth.

Produces constipation; hence will often check diarrhea.

Causes dark colored or black faeces. Should be given after eating.

Preparations:—

F. redactum. —

Very bland in its local effect. Devoid of astringent or styptic effects. Tasteless. Used as an internal chalybeate. Does not blacken the teeth. Produces comparatively little constipation. Used for children, and for adults with weak condition of the stomach. Must be kept stopped tight. One objection to its use is the impure state in

13. Taraxacum leucocoris (Dandelion)
April 21. Numerous.
14. Benzoin odoriferum, Nees.
(Spice bush: Benjamin-bush.)
April 22.
15. Fragaria
Strawberry April 24.
16. Corydalis
A yellow flower April 24
- 17
Peppergrass April 24.
18. Sanguinaria canadensis, L.
(Blood-root.) April 25. Common.
19. Asarum canadense, L.
(Wild Ginger): April 25. Only one.
20. Oreha spectabilis, L. (Showy Oreha)
In bud April 25
21. Camptosorus rhizophyllus, Link
(Walking-leaf) April 25 found.
- 22
Meadow Rue. In bud April 25.
- 23
Wood Anemone. In bud April 25.

which it is frequently found in the shops.

Dose, gr. 2 - gr 3.

Also given in the form of a lozenge.

Pil. F. Carbonatis. - Called "Vallette's Mass". Composition: Sulphate of iron, carbonate of sodium, mixed with clarified honey, & sugar, till it becomes thick.

Does not blacken the teeth, nor constipate, and has no astringent or styptic effects. Not very important.

There is a pharmaceutical preparation; regulated sized pill.

Dose, pill j - pill ij.

F. oxalis. - Bland. Unimportant.

Dose, gr. ij - gr. iij. Does not constipate nor blacken the teeth; but it is a virulent poison. Lemon-yellow.

F. lactas. - Unimportant.

F. sulphas - Called sulphate of iron.
F. sulphas Exsiccata. Dried do.
A powerful astringent and irritant.
Used as a caustic. Not much given.

(3.)

Violets.

1. Viola cucullata, Ait. (Common Blue Violet.) April 20, 1882.
2. Viola blanda, Willd. (Sweet Wild Violet.) April 21, 1882.
3. Viola Muhlenbergii, Torr. (American Dog Violet). April 24, 1882.
4. Viola pubescens, Ait. (Downy Yellow Violet). April 30, 1882.
5. Viola tricolor, L. (Pansy. Heart's-ease.). April 24, 1882. Many flower.

missigameensis 1319
 " " 1084
 " " 986
 " " 11888

Uspensius americanus 958

Blarina " " 1179

" *briscander* 1090

Arvicola austriacus 1128

" 980

" 982

" 1400

" 1108

Tupia 977

Torax corymbi 952

Panicea neglecta 898

" " 916

Panicea stricta gr. 1214
 1357

4 Spec Acanthis from
Kiltson Co., Minn.

Passerculus nos. 6592 and
7211 (6592 left in Mus. before).

~~No.~~ No. 7210 Zonotrichia
intermedia?

Is the Minn. Passerculus like
the eastern. It appears to me,
from recollection alone, to be
much less red than the eastern

Spizella pusilla. - Examine No.
3931, Gage, Mex. and see
if it is correctly identified as this.

Nos. 7044 + 7051 ~~are~~ are
checked by mistake as sent to
Am. Mus. They did not turn up.
An Acanthis ^{of a bunch} ~~is~~ also missing.

Compare Spizella pusilla No. 7139
+ see if it is the Eastern pusilla.

Pipilo erythrophthalmus Six show
~~traces of~~ white on second + scaps.

Pipilo erythrophthalmus

Six specimens from
Minnesota & Wisconsin
have considerably
white on outer webs of
secondaries. Is this the
case with the eastern
bird?

Is No. 7054 Parus erythr.?
and, if so, how does the
coloring compare with that
of winter birds?

S. J. SHERMAN

DISPENSING PHARMAGIST

424 NICOLLET AVENUE,
MINNEAPOLIS, MINN.



Bombus

Golden brown + feet,
orange yellow.

855; 1310; 337; 200;
w. 60; tars., 64 mm

R

Gallinago delicata.

See an extended notice by E. W. Nelson on p. 100
of his ^{Report upon} Natural History Collections ^{made in} Alaska
between the years 1877 and 1881, p. 100, 1887.

See also Turner, Lucien M. Contributions to
the Natural History of Alaska, p. 146, 1886.

The Sage specimens were not catalogued
(Gallinago + Rallus).



Plant Calendar on page
104 of M.H.T. Snelling notebook.



